



CONSOLIDATED COMMISSION ON UTILITIES

Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671) 648-3002 | guamccu.org

GUAM WATERWORKS AUTHORITY WORK SESSION

CCU Conference Room
4:30 p.m., Tuesday, February 16, 2021

AGENDA

1. CALL TO ORDER
2. ISSUES FOR DECISION
 - 2.1 Relative to Approval of Change Order No. 1 for the Pressure Zone Realignment and Tank Repair/Replacement Design Project / Resolution No. 09-FY2021
 - 2.2 Relative to Approval of the Additional Funding to the Construction Contract for the Tank Repair and Bypass Project / Resolution No. 10-FY2021
 - 2.3 Relative to Approval of Establishment of a GWA Rate Stabilization Fund / Resolution No. 11-FY2021
3. GM REPORT
 - 3.1 GM Summary
4. ISSUES FOR DISCUSSION
5. OTHER DISCUSSION
 - 5.1 CCU Rules Update
6. DIVISION REPORTS
 - 6.1 Communications
 - 6.2 Compliance & Safety
 - 6.3 Customer Service
 - 6.4 Engineering
 - 6.5 Finance
 - 6.6 Operations
7. ANNOUNCEMENTS
 - 7.1 Next CCU Meetings: GPA Work Session: February 18; CCU Regular Monthly Mtg.: February 23
8. ADJOURNMENT



Gloria B. Nelson Public Service Building | 688 Route 15 | Mangilao, Guam 96913
Tel: (671) 300-6846

Issues for Decision

Resolution No. 09-FY2021

Relative to Approval of Change Order No. 2 for the Pressure Zone Realignment and Tank Repair/Replacement Design Project

What is the project's objective and is it necessary and urgent?

The objective of the change order is to design additional water system improvements in Nimitz Hill. The design is urgent because it will address recent pressure issues causing frequent breaks and service outages to a large number of customers in the service area. The work includes a new waterline to replace existing AC piping along Route 6 that is breaking due to current pressure issues, the replacement of the newly installed temporary PRV (across the street from the Inter-Island Communications radio station on Rt. 6) with a permanent PRV and traffic-rated concrete vault, and the revision of the Nimitz District Metered Area (DMA) metering station to include a PSRV and SCADA to regulate pressures in the area.

Where is the location?

The additional items will be located in Nimitz Hill; with the new PSRV and meter with SCADA located on Larson Road and the ACP replacement/ PRV replacement along Route 6.

How much will it cost?

- Nimitz Hill Water Improvements: \$79,892.00
- Phase II Construction Management: \$200,000.00
- With additional Guam GRT, the total requested funding will be \$294,447.00

When will it be completed?

The design will be completed by March 31st, 2021.

What is the funding source?

- PW 09-03: Water Distribution System Pipe Replacement and Upgrades
- PW 09-04: Pressure Zone Realignment/ Development 2005 Improvements
- PW 09-10: Water Reservoir Internal/External Corrosion Rehabilitation Program
- PW 09-11: Water System Reservoir 2005 Improvements
- PW 12-01: Water Audit Program and Water Loss Control Plan
- MP-PW-Pipe-12: Rehabilitation and Replacement Program

The RFP/BID responses (if applicable):

N/A



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Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

GWA RESOLUTION NO. 09-FY2021

**RELATIVE TO APPROVAL OF CHANGE ORDER NO. 2 FOR THE PRESSURE ZONE
REALIGNMENT AND TANK REPAIR/REPLACEMENT DESIGN PROJECT**

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority (“GWA”); and

WHEREAS, the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, GWA’s PMO Brown and Caldwell has developed a pressure zone realignment plan as part of the Water Resource Master Plan; and

WHEREAS, Resolution No. 36 – FY2018 (Exhibit A – Resolution 36-FY2018) authorized the total funding of Two Million Five Hundred Thirty-Nine Thousand Nine Hundred Ninety-One Dollars (\$2,539,991.00) along with a ten percent (10%) contingency of Two Hundred Fifty-Three Thousand Nine Hundred Ninety-Nine Dollars and Ten Cents (\$253,999.10) for the design services of the Pressure Zone Realignment and Tank Repair/ Replacement project; and

WHEREAS, Resolution No. 12 – FY2020 (Exhibit B – Resolution 12-FY2020) authorized the total funding of Ninety Thousand Seven Hundred Seventy-Six Dollars and Ninety Cents (\$90,776.90) plus an additional Two Hundred Fifty-Four Thousand Dollars (\$254,000.00) to replenish the original contract’s contingency, to bring the total authorized funding to Three Million One Hundred Thirty-Eight Thousand Seven Hundred Sixty-Seven Dollars (\$3,138,767.00); and

WHEREAS, following CCU approval in Resolution No. 12-FY2020, GWA issued Change Order No. 1 to GHD; and

1 **WHEREAS**, GWA engineering has determined that due to recent problematic events in
2 the system, additional system improvements associated with the Pressure Zone Realignment are
3 necessary; and

4
5 **WHEREAS**, GWA is requesting for additional work which includes the following
6 (Exhibit C):

7 (1) Task A: Nimitz Hill Water Improvements- Additional design for ACP line
8 replacement, PSRV/meter installation with SCADA on Larson Rd., and the replacement of
9 a temporary PRV on Rt.6; and

10 (2) Task B: Construction management services for Pressure Zone Realignment
11 Construction Phase II, and;

12
13 **WHEREAS**, GWA and GHD has negotiated a price for the services provided in the
14 amount of Two Hundred Ninety-Four Thousand Four Hundred Forty-Seven Dollars (\$294,447.00)
15 for the design services described above (Exhibit C— Scope of Work and Fee); and

16
17 **WHEREAS**, GWA management is seeking CCU approval of the fee proposal relative to
18 Change order No. 2 in the amount of Two Hundred Ninety-Four Thousand Four Hundred Forty-
19 Seven Dollars (\$294,447.00) to fund the design and CM services; and

20
21 **WHEREAS**, GWA management further seeks CCU approval of the total authorized
22 funding of the design contract with GHD., Inc. to Three Million Four Hundred Thirty-Three
23 Thousand Two Hundred Fourteen Dollars (\$3,433,214.00); and

24
25 **WHEREAS**, the funding sourced for the construction project will be from bond funds as
26 detailed in the following CIP line items:

- 27 • PW 09-03: Water Distribution System Pipe Replacement and Upgrades
- 28 • PW 09-04: Pressure Zone Realignment/ Development 2005 Improvements
- 29 • PW 09-10: Water Reservoir Internal/External Corrosion Rehabilitation Program
- 30 • PW 09-11: Water System Reservoir 2005 Improvements
- 31 • PW 12-01: Water Audit Program and Water Loss Control Plan
- 32 • MP-PW-Pipe-12: Rehabilitation and Replacement Program

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve and authorize the following:

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the fee proposal submitted by GHD are fair and reasonable.
3. The CCU hereby authorizes the management of GWA to accept the fee proposal of Two Hundred Ninety-Four Thousand Four Hundred Forty-Seven Dollars (\$294,447.00) from GHD, attached hereto as Exhibit C, and execute a Change Order.
4. The CCU hereby approves the total funding amount to Three Million Four Hundred Thirty-Three Thousand Two Hundred Fourteen Dollars (\$3,433,214.00).
5. The CCU approves the funding sources from the following bond funds:
 - PW 09-03: Water Distribution System Pipe Replacement and Upgrades
 - PW 09-04: Pressure Zone Realignment/ Development 2005 Improvements
 - PW 09-10: Water Reservoir Internal/External Corrosion Rehabilitation Program
 - PW 09-11: Water System Reservoir 2005 Improvements
 - PW 12-01: Water Audit Program and Water Loss Control Plan
 - MP-PW-Pipe-12: Rehabilitation and Replacement Program

RESOLVED, that the Chairman certified and the Board Secretary attests to the adoption of this Resolution.

DULY AND REGULARLY ADOPTED, this 23rd day of February 2021.

Certified by:

Attested by:

JOSEPH T. DUENAS
 Chairperson

MICHAEL T. LIMTIACO
 Secretary

SECRETARY'S CERTIFICATE

I, Michael T. Limtiaco, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: _____

NAYS: _____

ABSENT: _____

ABSTAIN: _____

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EXHIBIT A



CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

GWA RESOLUTION NO. 36-FY2018

RELATIVE TO APPROVAL OF THE DESIGN SERVICES FOR THE PRESSURE ZONE REALIGNMENT AND TANK REPAIR/REPLACEMENT CONTRACT

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority (“GWA”); and

WHEREAS, the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, GWA is working on critical reservoir projects under the 2011 Court Order (“CO”) Paragraph 29 – Storage Tank/Reservoir Repair, Replacement, and Relocation Program; and

WHEREAS, GWA’s PMO Brown and Caldwell has developed a pressure zone realignment plan as part of the Water Resource Master Plan (2017 Draft WRMP); and

WHEREAS, engineering and design services are required to integrate the improvements needed for realigning pressure zones within the distribution system, and the on-going 2011 CO storage tank/reservoir program; and

WHEREAS, GWA has advertised the Request for Proposals (RFP-03-ENG-2018) soliciting statement of qualifications from experienced and qualified engineering firms to provide tank repair/replacement/modification design, pressure zone realignment and zone metering design, and limited construction management services for the implementation of the pressure zone realignment construction; and

WHEREAS, RFP packages were picked up by twenty (20) interested parties, from which GWA received proposal submittals from five (5) firms before the RFP submittal deadline; and

WHEREAS, the GWA A-E Selection committee reviewed and evaluated the five (5) proposals (See Exhibit A – Score Summary) and generated a short list of the top 3 firms with a recommendation to award a contract to the firm GHD (See Exhibit B – GM’s Determination); and

WHEREAS, GWA and GHD negotiated the price and scope of work for tank repair/replacement/modification design, the pressure zone realignment design (22 pressure zones), including zone metering, as recommended by the 2017 Draft WRMP, limited construction management services (estimated time & materials budget) for the implementation of the pressure zone realignment construction and an AWWA water audit, including three trial district metering areas (See Exhibit C – Scope of Work and Fee); and

WHEREAS, GWA management seeks approval of the estimated fee proposal amount of Two Million Five Hundred Thirty-Nine Thousand Nine Hundred Ninety-One Dollars (\$2,539,991.00), along with a ten percent (10%) contingency of Two Hundred Fifty-Three Thousand Nine Hundred Ninety-Nine Dollars and Ten Cents (\$253,999.10), to bring the total authorized funding amount to a maximum of Two Million Seven Hundred Ninety-Three Thousand Nine Hundred Ninety Dollars and Ten Cents (\$2,793,990.10); and

WHEREAS, funding for this project will be from the Bond Funds under the line items PW 09-04 Pressure Zone Realignment/Development 2005 Improvements, PW 09-10 Water Reservoir Internal/External Corrosion Rehabilitation Program, PW 09-11 Water System Reservoirs 2005 Improvements, and PW 12-01 Water Audit Program and Water Loss Control Plan; and

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve the following:

1. The recitals set forth above hereby constitute the findings of the CCU.

2. The CCU finds that the terms of the fee proposal submitted by GHD are fair and reasonable.
3. The CCU hereby authorizes the management to accept the fee proposal from GHD (Exhibit C) inclusive of estimated time and material budget for limited CM services, which is also incorporated into this Resolution in its entirety.
4. The CCU hereby authorizes the management of GWA to enter into a contract with GHD, in the amount of Two Million Five Hundred Thirty-Nine Thousand Nine Hundred Ninety-One Dollars and Zero Cents (\$2,539,991.00).
5. The CCU hereby approves the total funding amount for this project of Two Million Five Hundred Thirty-Nine Thousand Nine Hundred Ninety-One Dollars (\$2,539,991.00), with a ten percent (10%) contingency of Two Hundred Fifty-Three Thousand Nine Hundred Ninety-Nine Dollars and Ten Cents (\$253,999.10), to bring the total authorized funding amount to Two Million Seven Hundred Ninety-Three Thousand Nine Hundred Ninety Dollars and Ten Cents (\$2,793,990.10).
6. The CCU hereby further approved the funding source shall be the following:
 - PW 09-04: Pressure Zone Realignment/Development 2005 Improvements
 - PW 09-10: Water Reservoir Internal/External Corrosion Rehabilitation Program
 - PW 09-11: Water System Reservoirs 2005 Improvements
 - PW 12-01: Water Audit Program and Water Loss Control Plan

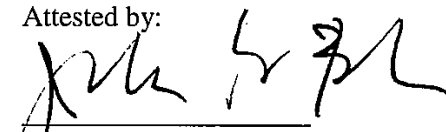
RESOLVED, that the Chairman certified and the Board Secretary attests to the adoption of this Resolution.

DULY AND REGULARLY ADOPTED, this 5th day of June 2018.

Certified by:


JOSEPH T. DUENAS
Chairperson

Attested by:


J. GEORGE BAMBA
Secretary

SECRETARY'S CERTIFICATE

I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES:	<u>5</u>
NAYS:	<u>0</u>
ABSTENTIONS:	<u>0</u>
ABSENT:	<u>0</u>



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March 7, 2018

To: Thomas F. Cruz, P.E., Chief Engineer

From: Gloria P. Bensen 
Chairperson, Consultant Selection Board

Subject: RFP-03-ENG-2018
Design Services for Pressure Zone Realignment and Tank Repair/Replacement
GWA Project No. W18-001-BND

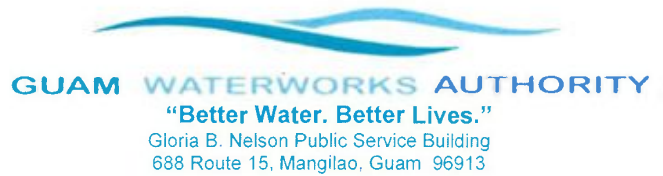
The following information is intended to document the evaluation process undertaken for the referenced solicitation.

EVALUATION COMMITTEE MEMBERS	
Name	Title
Brett Railey, P.E.	Engineer Supervisor
Garrett Yeoh	Senior Engineer
Ryan Diaz	Junior Engineer
Vincent Pangelinan	Operations Manager

Consultant	Evaluation Score				Total	Rank
1. EMPSCO Engineering Consultants	65	63	78	66	272	5
2. TG Engineers, PC	68	80	87	81	316	4
3. GHD	96	98	97	88	379	1
4. AECOM Technical Services	91	95	98	89	373	2
5. Duenas, Camacho & Associates	82	80	96	81	339	3


Scores were evaluated based on sum of the individual scores. The recommendation of the evaluation committee is shown in the ranking above.

Please review and approve at your earliest convenience so that we may proceed with the notification letters.



MEMORANDUM

To: Miguel C. Bordallo, General Manager

From: Thomas F. Cruz, P.E., Chief Engineer 

Subject: RFP-03-ENG-2018
Design Services for Pressure Zone Realignment and Tank Repair/Replacement
GWA Project No. W18-001-BND

Date: March 7, 2018

The Selection Committee has completed all necessary actions for selecting the most qualified consultant for the referenced solicitation. All proposals were reviewed and scored according to the conditions established in the solicitation. The evaluation summary sheet is attached for your information.

The committee recommends the following top three (3) firms in order of preference for the project:

1. GHD
2. AECOM Technical Services, Inc
3. Duenas, Camacho & Associates

Concurred:



VINCENT E. GUERRERO
Supply Management Administrator



Date

GENERAL MANAGER'S DETERMINATION

Consultant Firm Selected:

GHD

Remarks:



MIGUEL C. BORDALLO, P.E.
General Manager

3.13.18

Date



GWA Pressure Zone Realignment and Tank Repair/Replacement Design Scope of Work and Fees

I. GENERAL

GHD will provide design and construction management services for the Pressure Zone Realignment and Tank Repair/Replacement Project. The design services will consist of site investigations, preparation of plans, specifications, and estimates to construct improvements recommended in the Pressure Zone Realignment and Pressure Improvement report prepared by Brown and Caldwell completed in 2017. Project design tasks include review of Brown and Caldwell's report, investigation of GWA's existing system and comparison to the report figures, Basis of Design reports, design calculations, hydraulic modelling, construction schedule estimates, topographical surveys, property research, property mapping, geotechnical reports, cultural resource inventory and evaluation of historic resources, construction documents, design drawings in Auto CAD, and construction bid support services.

The construction management tasks include onsite inspection and inspection reports, project correspondence, Quality Assurance testing, submittal review, contractor schedule review, payment request review, and progress meetings.

Reports, plans, specifications and other documents submitted to GWA shall be in a form approved by GWA.

II. PROJECT OVERVIEW

The design for the Pressure Zone Realignment and Tank Repair/Replacement Project is based on work required to accomplish the zone realignment in the above mentioned report by Brown and Caldwell, and steel tank repair or replacement as needed. The project is divided into three general tasks, the key elements and details of the scope of work are described for each:

A. Pressure Zone Realignment and Zone Metering

Appendices G and H of the Pressure Zone Realignment and Pressure Improvement report show a multitude of improvements and changes to the system over 53 zones. GHD will review and analyse the report appendices. The analysis will mainly consist of verification of existing infrastructure shown in the appendices by comparing as-built drawings and site visits. If discrepancies are found, alternative designs will be presented



to provide the same result as intended by the report. GHD will not analyse the report for effectiveness of improvements to realign the zones.

Individual improvements that may be designed are pressure reducing valves (PRV) in vaults, master meters in vaults, in-line valves to be closed, abandonment of existing PRVs, PRV rehabs, piping connections, new waterlines, and SCADA and instrumentation systems.

GHD will sub-contract Water Systems Optimization, Inc. (WSO) to perform a water audit, analysis of losses, GWA's economic level of leakage, and implement three pilot District Metered Areas (DMA). The scope from WSO will be approved by GWA. GHD will provide only minimal project management and coordination support to WSO's scope of work and no design effort is included.

B. Hydraulic Modelling

The hydraulic modelling scope will be limited to updating the model once improvements are completed. Hydraulic modelling will also be used to determine the setting of new and replaced PRVs.

C. Tank Repair and Site Upgrades

The project includes possible repairs to ten existing steel reservoirs. The tanks are listed in the table below.

Table 2.1 Tank to Repair

Number	Tank Name	Capacity (MG)	Status	Inspected
1	Umatac Subdivision	0.5	Online	No
2	Windward Hills	1.0	Online	No
3	Umatac #1	0.2	Online	No
4	Kaiser	2.5	Online	No
5	Pigua	0.5	Online	No
6	Agat #1	1.0	Online	No
7	Malojloj	1.0	Online	No
8	Upper Nimitz	0.01	Online	Yes
9	Lower Nimitz	0.025	Offline	Yes
10	Agat #2	0.5	Online	Yes

GHD will provide construction management services for the repair of the existing steel tanks listed in Table 2.1. GWA will determine which tanks are to be repaired or



replaced. The fees for construction management services will be awarded through change orders to the contract as needed.

Tank site upgrades may include cathodic protection systems, instrumentation systems, new vaults, altitude valves, meters, piping, and a control building. The needs of each site will be determined by GWA.

III. DESIGN PHASE TASKS

A. Project Controls:

These services shall be provided to insure the project is efficiently managed and sufficient data is collected to provide a thorough design.

The project controls for each site or improvement shall consist of:

1. Analysis of the existing site conditions and on-site inspection – GHD shall visit each site to determine existing conditions and system configurations including
 - a. Existing site conditions and facilities
 - b. Existing site operation
 - c. Proposed site improvements
 - d. Preliminary site layout
 - e. Research existing Right-of-Way
 - f. Demolition requirements
 - g. Minor grading requirements
 - h. Piping and valving requirements
 - i. Operational requirements
 - j. Electrical power supply
 - k. Construction sequencing
 - l. Future expandability as needed
2. Survey Services – GHD will contract with a subconsultant to provide surveying services at each site as listed in the fee proposal, consisting of property boundary or Right-of-way (ROW), topographic field survey, and preparation of topographical mapping. These services include preparation of topographical and boundary/ROW mapping of the improvement or tank site including existing facilities above ground within the project area and adjacent sites which may be impacted. The GHD team will make all necessary research for determination of land ownership.

B. Design:

1. GHD will prepare construction drawings, specifications, cost estimates, supporting design calculations, and other documents necessary for project construction.



- a. The design plans will include necessary piping, valving, fittings, and appurtenances to connect to the existing water system. The plan will also include necessary erosion control measures such as erosion control seeding, silt fencing, protection of stockpiled materials, and other necessary measures to mitigate the impact of erosion and sedimentation.
- b. GHD will prepare and submit the following:
 - Multidiscipline plans to the 30% (preliminary design), 60%, 90%, and 100% completion levels.
 - Specifications at 60%, 90%, and 100% completion levels, which will include front end documents and technical specifications applicable to the indicated completion levels.
 - Construction cost estimate update at 60% completion level. This estimate will be a Class 3 estimate in accordance with the AACE International Cost Estimate Classification System. All costs will be in current dollars and escalated to the estimated midpoint of construction.
 - Final construction cost estimate based on quantity takeoffs and the requirements of the 100% design plans and specifications. This estimate will be a Class 2 estimate in accordance with the AACE International Cost Estimate Classification System. All costs will be in current dollars and escalated to the estimated midpoint of construction.
 - GHD shall coordinate with relevant agencies such as Guam Environmental Protection Agency, Department of Public Works, and other relevant agencies at the 60%, and 100% submittals. This includes submitting design documents (11x17 plans and specifications at both phases) and maintaining communication throughout the duration of the project and incorporating any relevant regulation requirements in the design.

Task B Deliverables: Deliverables to GWA will be provided in accordance with the following:

1. 30% phase
 - a. 5 hard copies of the design development documents – if requested
 - b. Digital copy of the design development documents
2. 60% phase
 - a. 5 hard copies of the 60% design documents (plan submittal shall consist of 3 sets of 11"x17" sized drawings if requested)
 - b. Digital copy of the 60% design documents
3. 90% phase
 - a. 5 hard copies of the 90% design documents (plan submittal shall consist of 3 sets of 11"x17" sized drawings if requested)



- b. Digital copy of the 90% design documents
- 4. Final phase
 - a. 5 hard copies of the final design documents (plan submittal shall consist of 2 sets of 36"x24" sized drawings and 3 sets of 11"x17" sized drawings)
 - b. Digital copy of the final design documents

IV. CONSTRUCTION PHASE TASKS

A. Construction Bid Support Services:

1. Pre-Bid Conference (4 total) - GHD shall assist GWA with the meeting and provide meeting minutes for the pre-bid conference. The pre-bid conference shall be arranged to inform prospective bidders of the overview of the project. GHD will be present to respond to technical questions involving the design and specifications and will provide formal responses within five working days of the meeting.
2. Request For Information – GHD will assist GWA with preparing answers to questions regarding the bid packages during the bidding phase.
3. Bid Addenda – GHD will provide addenda to the plans, specifications and contract documents as needed during the bidding phase.
4. Bid Evaluation (4 total) – Upon receipt of bids GHD will review the bid packages and provide GWA with a recommendation and/or concurrence on the proposed selected contractor. This will include a bid analysis, review of bid proposal prices, and conformance with contract requirements and the Guam Procurement Code. GHD will prepare a recommendation of award letter.

B. Construction Management Services:

GHD will assume a budget for time and material construction management services for the Pressure Zone Realignment and Zone Metering improvements. The budget assumes a part-time construction manager for four (4) different construction packages with a four month construction duration for each. If the assumed budget is depleted and additional construction management services are required, then GHD will negotiate a change order to the contract with GWA.

Construction Management Services shall consist of:

1. Implementation and maintenance of project controls
2. Conduct and prepare meeting minutes for
 - a. Pre-construction conference
 - b. Weekly or bi-weekly progress meetings
 - c. As-built drawing review meetings
 - d. Other meetings as required
3. Project correspondence including



- a. Daily construction reports
 - b. Material testing logs
 - c. Progress photos
- 4. Submittal and shop drawing review including Contractor project schedules
- 5. Payment requests review and processing including payroll reports
- 6. Track and process Requests for Information
- 7. General Compliance Monitoring for
 - a. Labor laws
 - b. Permit compliance
 - c. insurance
- 8. Claims and disputes
 - a. Claim records
 - b. Review and interpret claims
 - c. Change order review, negotiation and log
 - d. Prepare design changes
- 9. Maintenance of project records and document management
- 10. Quality Assurance testing and inspection
- 11. Construction observation, part-time inspection and quality control monitoring
- 12. Provide special inspections as required
- 13. Project Closeout
 - a. Inspections
 - b. Punch list development
 - c. Coordinate training
 - d. Review closeout submittals
- 14. Final CM report

V. PROJECT PLANNING AND MANAGEMENT

The GHD team shall arrange for a bi-weekly design meeting with team members and GWA to discuss design issues, progress of work, and coordination. GHD shall prepare meeting minutes for all design progress meetings. The meeting minutes shall include action items from week to week. Separate hydraulic analysis team meetings will be held to streamline this time sensitive work.

GHD shall maintain an electronic project record which will include all project correspondence, reports, meeting minutes, deliverables, and other items required to document the project. GHD will communicate and coordinate with all stakeholders during the design, bid and construction phases.

CLARIFICATIONS AND ASSUMPTIONS:

1. The fee assumes items will be included in the design that may not be needed based on the analysis of the appendices of the report by Brown and Caldwell. If any item is



not required, based on the analysis report, then the individual fee can be removed from the scope.

2. Assumed individual improvements for the project are listed on the attached Scope of Work Table. If design is required for other improvement, GHD will negotiate a change order to the contract.
3. GHD assumed Project Planning and Management will last for two years (104 weeks). If the project is extended past that time, additional fees will be negotiated with GWA.
4. Pressure Zone Realignment and Zone Metering:
 - a. Improvements to the PRV/meter and existing tank sites will include only minimal grading design if required.
 - b. A budget for construction management has been assumed. The budget was based on an estimate of one part-time inspector for four separate packages with four-month construction durations. The budget will be invoiced as time and material.
 - c. Property investigation, appraisals, and boundary surveys are excluded.
 - d. Design of remote control of three PRV sites via the SCADA system will be provided as trial for GWA.
 - e. Refurbishment of existing PRV sites will only include the replacement of pipe, fittings and PRVs. Meters, electrical, SCADA and new vaults are excluded.
5. Hydraulic Modelling:
 - a. Effort for hydraulic modelling has been assumed per improvement site as needed to verify the improvement is needed per the model prior to design and to update the model after construction. Hydraulic modelling will be used to determine the setting of the new PRVs in the project. No extensive modelling of the system or updating is included.
6. Tank Repair and Site Upgrades:
 - a. The review of tank repair plans is excluded.
 - b. The project will include repair for the ten tanks listed above and in the RFP. It is assumed that all ten tanks can be repaired. If, after further inspection, it is determined by GWA that an existing tank cannot be repaired, then GHD will negotiate a change to the scope of work to design an AWWA D110 Type I pre-stressed concrete replacement reservoir.
 - c. Designs for improvements to existing tank sites may include cathodic protection systems, instrumentation systems, new vaults, altitude valves, meters, piping, a control building, other necessary tank and site upgrades. The needs of each site will be determined by GWA.
 - d. Construction Management Services for repair of existing steel tanks will be awarded as needed through a change order to the contract.
 - e. Hazardous material testing is excluded. Testing can be added through a change order to the contract if a tank is determined to be demolished and testing is deemed necessary.



7. Data Loggers: An assumed budget of \$525 per logger setup (x15), including lock and fittings. GHD will provide research of different brands and models by requesting experience from other GHD offices. There may not be any responses from the request resulting in no recommendation.
8. GHD will not prepare the construction permit applications, route the permits through the required government agencies, nor pay permit fees.
9. GHD will create four (4) separate bid packages for the pressure zone realignment. The improvements will be divided to provide four (4) packages with similar construction costs.
10. Fees are not included for GHD to revise or update bid packages that have expired due to a delay in advertising them for bid. GWA agrees to negotiate with GHD for change orders for additional work that may include such services as restamping plans and specifications, verifying design based on a change in the adopted building code or design standards, and preprinting of the bid packages.
11. GWA agrees to negotiate with GHD for change orders for additional design phase services due to additional work or any other reason not due to the negligent acts of GHD.

VI. FEE SCHEDULE

TASK	DESCRIPTION	COST
A	Project Planning/Management	
A1	Design Scope/Fee Development	\$11,106
A2	Project Design Meetings (52, every two weeks)	\$31,214
A3	Hydraulic Analysis Team Meetings (24)	\$13,032
A4	Planning and Design Team Management	\$54,300
A5	Project Communication/File Management	\$14,118
A6	Subconsultant Management	\$12,660
A7	Review of Pressure Zone Realignment Report	\$5,430
A8	Project Administration/Invoicing	\$14,832
A9	District Metered Areas (DMA) Study	\$206,396
A10	Data Loggers (15)	\$9,749
	SUBTOTAL	\$372,837
	EXPENSES SUBTOTAL	\$7,068
	PLANNING/MANAGEMENT & EXPENSES SUBTOTAL	\$379,905
B	Pressure Zone Realignment Tasks	
B1.0	Project Controls	
B1.1	Plan Set Preparation (8)	\$11,456
B1.2	Specifications General (8)	\$19,794
B1.3	GEPA Review and Responses (8)	\$4,074
B1.4	Design Review Meeting (8)	\$3,076
	SUBTOTAL	\$38,400
B2.0	Pressure Zone Improvements Design	



G-4	Yigo North	\$84,317
G-5	Yigo South	\$9,052
G-7	Astumbo	\$233,432
G-8	Route 15	\$16,991
G-9	Barrigada	\$158,416
G-10	Barrigada Subzone	\$153,288
G-12	Hyundai	\$10,290
G-13	Hyundai Subzone	\$18,338
G-14	Mangilao North	\$103,375
G-15	Mangilao Central	\$50,758
G-16	Kaiser	\$31,262
G-17	Harmon Industrial	\$62,365
G-18	Tumon/Tamuning/Hagatna North	\$68,231
G-19	Tumon/Tamuning/Hagatna Central	\$13,415
G-21	Tiyan	\$87,253
G-22	Mangilao	\$112,016
G-23	Ordot/Sinajana	\$171,192
G-25	Pago Bay	\$34,435
G-31	Santa Rita	\$10,855
G-32	Santa Ana Lower	\$45,043
G-33	Santa Ana Upper	\$13,403
G-52	Chalan Palauan	\$17,726
B2.1	Tank Site Upgrades (assumed budget)	\$160,000
	SUBTOTAL	\$1,665,453
B3.0	Construction Bid Support Services	
B3.1	Prebid Conference and Meeting Minutes (8)	\$2,896
B3.2	RFI Responses (assume 10 at 2 hr each, per package)	\$14,480
B3.3	Bid Addenda	\$4,992
B3.4	Bid analysis and recommendation (8)	\$10,612
	SUBTOTAL	\$32,980
B4.0	Construction Management Services	
B4.1	Assumed T&M Budget (4 packages, part-time CM, 4 mo. Constr. Ea)	\$300,000
	SUBTOTAL	\$300,000
	PRESSURE ZONE DESIGN SERVICES SUBTOTAL	\$2,036,833
ALL	SUBTOTAL	\$2,416,738
ALL	GRT AT 5.1%	\$123,254
ALL	GRAND TOTAL	\$2,539,991

EXHIBIT B



CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

GWA RESOLUTION NO. 12-FY2020

**RELATIVE TO APPROVAL OF CHANGE ORDER NO. 1 FOR THE PRESSURE ZONE
REALIGNMENT AND TANK REPAIR/REPLACEMENT DESIGN PROJECT**

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority (“GWA”); and

WHEREAS, the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, GWA’s PMO Brown and Caldwell has developed a pressure zone realignment plan as part of the Water Resources Master Plan; and

WHEREAS, CCU Resolution No. 36-FY2018 (Exhibit A-Resolution 36-FY2018) authorized a design contract with GHD with total funding of Two Million Five Hundred Thirty-Nine Thousand Nine Hundred Ninety-One Dollars (\$2,539,991.00) along with a ten percent (10%) contingency of Two Hundred Fifty-Three Thousand Nine Hundred Ninety-Nine Dollars and Ten Cents (\$253,999.10) for the design services of the Pressure Zone Realignment and Tank Repair/Replacement project; and

WHEREAS, GWA seeks to continue the design services of GHD and their subconsultant, Water Systems Optimization, Inc. (WSO) for the further development of an island-wide water loss control program and construction plans for program execution; and

WHEREAS, GWA and GHD have negotiated a price of Three Hundred Seventy-Three Thousand Six Hundred Seventy Dollars (\$373,670.00) for the design services described above (Exhibit B-Scope of Work and Fee); and

WHEREAS, GWA management is requesting authorization to increase the funding amount for the GHD contract by Ninety Thousand Seven Hundred Seventy Six Dollars and Ninety Cents (\$90,776.90) plus an additional Two Hundred Fifty Four Thousand Dollars (\$254,000.00) to replenish the original contract's contingency, bringing the total authorized funding to Three Million One Hundred Thirty-Eight Thousand Seven Hundred Sixty-Seven Dollars (\$3,138,767.00); and

WHEREAS, the funding source for the construction project will be from bond funds as detailed in the following CIP line items:

- PW 09-04: Pressure Zone Realignment/ Development 2005 Improvements
- PW 09-10: Water Reservoir Internal/External Corrosion Rehabilitation Program
- PW 09-11: Water System Reservoir 2005 Improvements
- PW 12-01: Water Audit Program and Water Loss Control Plan

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve and authorize the following:


1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the fee proposal submitted by GHD are fair and reasonable.
3. The CCU hereby authorizes the management of GWA to accept the fee proposal of Three Hundred Seventy-Three Thousand Six Hundred Seventy Dollars (\$373,670.00) from GHD, attached hereto as Exhibit B, and execute a Change Order.
4. The CCU hereby approves the total funding amount to Three Million One Hundred Thirty-Eight Thousand Seven Hundred Sixty-Seven Dollars (\$3,138,767.00).
5. The CCU approves the funding sources from the following bond funds:
 - PW 09-04: Pressure Zone Realignment/ Development 2005 Improvements
 - PW 09-10: Water Reservoir Internal/External Corrosion Rehabilitation Program

- PW 09-11: Water System Reservoir 2005 Improvements
- PW 12-01: Water Audit Program and Water Loss Control Plan

RESOLVED, that the Chairman certified and the Board Secretary attests to the adoption of this Resolution.

DULY AND REGULARLY ADOPTED, this 28th day of January 2020.

Certified by:


JOSEPH T. DUENAS
Chairperson

Attested by:


MICHAEL T. LIMTIACO
Secretary

SECRETARY'S CERTIFICATE

I, Michael T. Limtiaco, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES:	<u>5</u>
NAYS:	<u>0</u>
ABSTENTIONS:	<u>0</u>
ABSENT:	<u>0</u>



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EXHIBIT A



CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

GWA RESOLUTION NO. 36-FY2018

RELATIVE TO APPROVAL OF THE DESIGN SERVICES FOR THE PRESSURE ZONE REALIGNMENT AND TANK REPAIR/REPLACEMENT CONTRACT

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority (“GWA”); and

WHEREAS, the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, GWA is working on critical reservoir projects under the 2011 Court Order (“CO”) Paragraph 29 – Storage Tank/Reservoir Repair, Replacement, and Relocation Program; and

WHEREAS, GWA’s PMO Brown and Caldwell has developed a pressure zone realignment plan as part of the Water Resource Master Plan (2017 Draft WRMP); and

WHEREAS, engineering and design services are required to integrate the improvements needed for realigning pressure zones within the distribution system, and the on-going 2011 CO storage tank/reservoir program; and

WHEREAS, GWA has advertised the Request for Proposals (RFP-03-ENG-2018) soliciting statement of qualifications from experienced and qualified engineering firms to provide tank repair/replacement/modification design, pressure zone realignment and zone metering design, and limited construction management services for the implementation of the pressure zone realignment construction; and

EXHIBIT A

WHEREAS, RFP packages were picked up by twenty (20) interested parties, from which GWA received proposal submittals from five (5) firms before the RFP submittal deadline; and

WHEREAS, the GWA A-E Selection committee reviewed and evaluated the five (5) proposals (See Exhibit A – Score Summary) and generated a short list of the top 3 firms with a recommendation to award a contract to the firm GHD (See Exhibit B – GM’s Determination); and

WHEREAS, GWA and GHD negotiated the price and scope of work for tank repair/replacement/modification design, the pressure zone realignment design (22 pressure zones), including zone metering, as recommended by the 2017 Draft WRMP, limited construction management services (estimated time & materials budget) for the implementation of the pressure zone realignment construction and an AWWA water audit, including three trial district metering areas (See Exhibit C – Scope of Work and Fee); and

WHEREAS, GWA management seeks approval of the estimated fee proposal amount of Two Million Five Hundred Thirty-Nine Thousand Nine Hundred Ninety-One Dollars (\$2,539,991.00), along with a ten percent (10%) contingency of Two Hundred Fifty-Three Thousand Nine Hundred Ninety-Nine Dollars and Ten Cents (\$253,999.10), to bring the total authorized funding amount to a maximum of Two Million Seven Hundred Ninety-Three Thousand Nine Hundred Ninety Dollars and Ten Cents (\$2,793,990.10); and

WHEREAS, funding for this project will be from the Bond Funds under the line items PW 09-04 Pressure Zone Realignment/Development 2005 Improvements, PW 09-10 Water Reservoir Internal/External Corrosion Rehabilitation Program, PW 09-11 Water System Reservoirs 2005 Improvements, and PW 12-01 Water Audit Program and Water Loss Control Plan; and

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve the following:

1. The recitals set forth above hereby constitute the findings of the CCU.

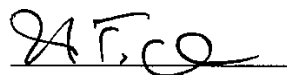
EXHIBIT A

2. The CCU finds that the terms of the fee proposal submitted by GHD are fair and reasonable.
3. The CCU hereby authorizes the management to accept the fee proposal from GHD (Exhibit C) inclusive of estimated time and material budget for limited CM services, which is also incorporated into this Resolution in its entirety.
4. The CCU hereby authorizes the management of GWA to enter into a contract with GHD, in the amount of Two Million Five Hundred Thirty-Nine Thousand Nine Hundred Ninety-One Dollars and Zero Cents (\$2,539,991.00).
5. The CCU hereby approves the total funding amount for this project of Two Million Five Hundred Thirty-Nine Thousand Nine Hundred Ninety-One Dollars (\$2,539,991.00), with a ten percent (10%) contingency of Two Hundred Fifty-Three Thousand Nine Hundred Ninety-Nine Dollars and Ten Cents (\$253,999.10), to bring the total authorized funding amount to Two Million Seven Hundred Ninety-Three Thousand Nine Hundred Ninety Dollars and Ten Cents (\$2,793,990.10).
6. The CCU hereby further approved the funding source shall be the following:
 - PW 09-04: Pressure Zone Realignment/Development 2005 Improvements
 - PW 09-10: Water Reservoir Internal/External Corrosion Rehabilitation Program
 - PW 09-11: Water System Reservoirs 2005 Improvements
 - PW 12-01: Water Audit Program and Water Loss Control Plan

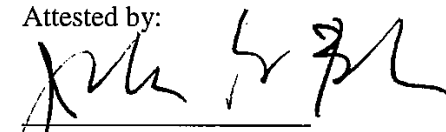
RESOLVED, that the Chairman certified and the Board Secretary attests to the adoption of this Resolution.

DULY AND REGULARLY ADOPTED, this 5th day of June 2018.

Certified by:


JOSEPH T. DUENAS
 Chairperson

Attested by:


J. GEORGE BAMBA
 Secretary

SECRETARY'S CERTIFICATE

I, J. George Bamba, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES:	<u>5</u>
NAYS:	<u>0</u>
ABSTENTIONS:	<u>0</u>
ABSENT:	<u>0</u>



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December 24, 2019

Mauryn McDonald, PE
 Chief Engineer
 Guam Waterworks Authority
 Gloria B. Nelson Public Service Building
 688 Route 15
 Mangilao, Guam 96913

Attention: Garrett Yeoh

**RE: Change Proposal 02 for Design Services for GWA's Pressure Zone Realignment and Tank Repair/Replacement, GWA Project W18-001-BND
 Water Loss Control Program Development**

Dear Ms. McDonald:

GHD is pleased to submit this change proposal to amend our Scope of Work and Fee for the Pressure Zone Realignment and Tank Repair/Replacement (Pressure Zone Realignment) project. This scope of work defines the additional design services GHD and our subconsultant, Water Systems Optimization, Inc. (WSO), will provide for Phase 3 of the Water Loss Control Program. More specifically, the design services will include the development of a plan to implement District Metered Areas (DMA) island-wide and the construction documents to execute four sites that resulted from the DMA Conversion report prepared by WSO and delivered to GWA November 2019. The original project scope will be amended on a lump sum basis per the fees in the table below.

SCOPE OF WORK

The first step will be the Phase 3 Water Loss Control Program Development to be prepared by WSO. The detailed scope of work, dated October 2019, is attached. The plan will include identification of DMA infrastructure requirements to implement the DMAs in Task 4 of the attached scope of work. GHD will provide project oversight and coordination between the original Pressure Zone Realignment scope of work. Efforts will be coordinated with the design and construction documents of the Pressure Zone Realignment in the determination of DMAs. GHD will review the infrastructure requirements identified under Task 4 of the WSO scope of work for suitability with GWA's water system and the climate on Guam.

Secondly, GHD will prepare construction documents to execute the infrastructure requirements to convert four temporary DMAs under Phase 2 of the WSO original scope to permanent DMAs. The design will follow the recommendations in the report "DMA Conversion – Recommendations for Conversion of the



Temporary DMAs to Permanent DMAs.” The four DMAs are Asan-Piti, Mataguac, Nimitz Estates, and Windward-Talafofo. These recommendations included battery-powered flow meters, data loggers and M2M data transmission that do not communicate with GWA’s SCADA system. No electrical or SCADA design will be provided under this scope of work. The documents will include specifications, plans, cost estimates, and bid forms necessary for bidding and permit submittal to DPW. The documents will be integrated with construction documents for a phase of the Pressure Zone Realignment. GHD will prepare and submit the following:

- Multidiscipline plans at 30%, 60%, 90%, and Final completion levels per the requirements for Pressure Zone Realignment.
- Construction cost estimate based on the 60% and 100% design plans and specifications. These estimates will be Class 3 and 2 respectively in accordance with the AACE International Cost Estimate Classification System.

GHD shall coordinate with Guam Environmental Protection Agency and Department of Public Works at the 90% submittal. This includes submitting 11x17 plans, one meeting with each, and incorporating any relevant regulation requirements in the design.

ASSUMPTIONS AND EXCEPTIONS

- This change proposal only applies to the scope of work and contract amount. The terms of the original executed agreement still apply.
- The scope to prepare construction documents for the execution of the infrastructure improvements for permanent DMAs is limited to the specific sites listed above. If infrastructure requirements are needed for more sites, GHD will negotiate a fee adjustment.
- GHD’s scope of work assumes that existing conditions are accurately defined by WSO and SCADA and electrical design are excluded. The fee will be renegotiated for design changes based on differing conditions from those defined by WSO.
- Property and right-of-way research and acquisition will be provided by GWA.
- Survey services are excluded. It is assumed that the existing site conditions can be prepared based on field hand measurements, utility locations from aboveground utility appurtenances, and as-built drawings.
- Construction Bid Support Services are excluded.
- Construction Management Services are excluded.

The fee will be adjusted accordingly if designs are needed at less than 30 sites or less than four different sets of contract documents are prepared for bidding. The fees for specifications and bid plans apply if the documents are combined into a set with improvements from the original Pressure Zone Realignment scope of work.

FEE SCHEDULE FOR ADDITIONAL DESIGN SERVICES

TASKS	TOTALS
Original Contract Amount	\$2,511,097
WSO fee and GHD markup	\$287,500



GHD Project Management and Coordination	\$14,800
GHD Construction Documents	\$52,900
<ul style="list-style-type: none"> • 4 sites at \$11,000 each • Enclosure Detailing \$4,000 • Specifications Additions \$2,500 • Cost Estimates \$2,400 	
Subtotal Cost	\$355,200
Guam GRT (at 5.2%)	\$18,470
TOTAL CHANGE PROPOSAL COST	\$373,670
AMENDED CONTRACT AMOUNT	\$2,884,767

Work that exceeds the scope of this proposal will be brought to your attention for review, approval and fee adjustment. Work performed will be billed monthly based on the estimated percent complete. We stand ready to provide the professional services necessary to assist GWA in this endeavor.

Sincerely,

Aaron Sutton, PE, ENV SP
Project Manager

Attachments: WSO Phase 3 Water Loss Control Program Development Proposal, October, 2019

Cc: file

GUAM WATERWORKS AUTHORITY

Phase 3

Water Loss Control Program Development

WATER SYSTEMS OPTIMIZATION, INC.



PROPOSAL SUBMISSION

OCTOBER, 2019

ELECTRONICALLY SUBMITTED

COVER LETTER

October 18, 2019

TO: GHD - Guam

Attn: Mr. Aaron Sutton, P. E.
GHD Guam Office Manager

FROM: Water Systems Optimization, Inc.

131 Kissling Street
San Francisco, CA 94103
Tel: 415-533-0419

W S O



Dear Mr. Sutton,

After successful completion of Phase 1 and 2 of the Guam Waterworks Authority (GWA) Water Loss Control Program we are pleased to submit this scope for Phase 3 as requested during recent meetings with GWA stakeholders.

Phases 1 and 2 have confirmed that there is a strong case for substantial cost recovery through the implementation of a comprehensive water loss reduction project in GWAs distribution network.

In Phase 3, WSO will develop a water loss control program for GWA based on the island-wide implementation of District Metered Areas, an approach proven successful during Phase 2. The aim is to provide a long-term, sustainable and holistic approach to monitoring and managing water losses within the GWA water supply and distribution network.

Our project team wholeheartedly believes that we are uniquely positioned to provide the best service to GWA and its customers. Water Systems Optimization (WSO) respectfully submits the enclosed scope with the intention that all of the required information is supplied. WSO will happily provide any further clarification if needed.

If you have any questions, please do not hesitate to contact me at (786) 877-5752 or by email at reinhard.sturm@wsoglobal.com.

Sincerely,

Reinhard Sturm

CEO/President – WSO

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WSO Scope: GWA Phase 3 Water Loss Control Program Development

1 PHASE 3: WATER LOSS CONTROL PROGRAM DEVELOPMENT

Project Approach & Understanding

During the Phase 2 Pilot Project, the direct measurement of water losses in three pilot temporary District Metered Areas (DMAs) supported and confirmed the results from the Phase 1 top-down water audit - that physical water loss from leaking pipes is the major component of water loss for GWA.

In Phase 3 WSO will develop a water loss control program for GWA based on the island-wide implementation of DMAs. The aim is to provide a long-term, sustainable and holistic approach to monitoring and managing water losses within the GWA water supply and distribution network.

DMAs allow the direct measurement of water losses within the water network and can be used to set targets for water loss reduction at the DMA, supply zone and system-wide level. Within each DMA, leak detection and repair will be carried out to reduce water losses from detectable leaks and, where necessary, pressure within the DMA will be managed downwards to further reduce losses from background leaks. A DMA monitoring system will provide for the automated calculation of monthly water loss volume within each DMA. This allows DMAs to be ranked in priority order according to their volume of water loss. The long-term aim will be to reduce the water loss volume in each DMA to the optimum economic level and to focus water loss control activity in those DMAs where water loss increases above the economic level. This approach will ensure that GWA reduces the current markedly high water-loss level and has in place a system to manage future water loss levels at the most economic level.

The requested services include the development of a DMA implementation program that takes into account the ongoing pressure zone realignment program and other relevant CIP and operational programs.

WSO proposes the following steps to develop a DMA-based water loss water management program for GWA.

1. Review existing zone realignment and CIP plans and hydraulic models.
2. Identify potential DMAs to provide maximum coverage of the water supply and distribution network.
3. Identify the GWA customers inside each potential DMA to assess for DMA size and water demand.
4. Identify DMA infrastructure requirements and costs including requirements for DMA meter points, chambers, boundary valves, telemetry/SCADA and pressure management.
5. Produce a prioritized ranking of potential DMAs by ease / least cost implementation.
6. Develop a phased DMA implementation plan (3 to 5-year plan).
7. Produce draft scopes for the various project implementation elements (design, construction and management).

2 PHASE 3: SCOPE OF WORK

Task 1: Review of Existing Plans and Models

Task 1A: Zone Realignment Plan and Phasing

Review Zone Realignment Plan

WSO will review the ongoing zone realignment plan to understand the current and proposed network configuration, as well as the associated realignment tasks (new PRVs etc.). WSO will also review the phasing of the zone realignment work in order to understand the sequence in which the zones are being realigned. This will feed into the later task where the DMA Implementation Plan is developed.

Task 1A outcomes:

- *Understanding of the current and proposed network configuration*
- *Understanding of the order in which the pressure zones are being realigned*

Task 1B: Hydraulic Model

Review Hydraulic Model Output

WSO will review the current hydraulic model of the GWA network, including the future scenarios that cover the pressure zone realignment. This will improve the understanding of how the current network configuration is performing and what effects the proposed pressure zone realignment work will have. The model can also be used to test the proposed DMAs that are identified in Task 2.

Task 1B outcomes:

- *Utilization of the hydraulic model to assist in understanding the performance of the current network configuration*
- *Utilization of the hydraulic model to assist in understanding the performance improvements being brought about by the proposed pressure zone realignment work*
- *Prepare for utilization of the hydraulic model to test potential DMAs*

Task 1C: GIS

Review current GIS records

Obtain latest GIS records for the pipe network and customer locations for DMA design.

Task 1C outcomes:

- *Utilization of GIS records for DMA design*

Task 1D: Pressure Reducing Valve (PRV) Rehabilitation / Replacement Plans and any other relevant CIP projects

Review the PRV Rehabilitation / Replacement Plans

WSO will review GWAs plans for rehabilitation and/or replacement of PRVs and all other relevant CIP projects (pump station upgrades, new wells, etc.) to ensure these are taken into account in the DMA identification phase.

Task 1D outcomes:

- *Understanding of GWAs PRV rehabilitation / replacement plans*
- *Understanding of relevant CIP projects*

Task 2: Identification of Potential DMAs**Task 2A: Desk Study**

WSO will carry out a desk study utilizing the data and understanding gained in Task 1 to identify all the potential DMAs, including the potential DMA inlet points and boundaries. Each potential DMA will be tested using the hydraulic model to ensure that it can be implemented without impacting on service levels.

Task 2A outcomes:

- *Draft list of potential DMAs with inlet points and boundaries*

Task 2B: Site Visit to Potential DMA Inlet Locations

WSO will carry out a site visit to all potential DMA inlet locations to identify the optimal DMA inlet meter point location.

Task 2B outcomes:

- *DMA Inlet meter Location Point Plans.*

Task 2C: Site Visit to Potential DMA Boundary Locations

The extent of each DMA boundary will be determined by inspection of the pressure zone details and the distribution network records. The location of any boundary valve will be identified. All boundary valves will be located and tested for operation including whether it can provide a water-tight shut when closed off and tested for operation. Should a boundary valve be found to be inoperable or passing, it will need to be replaced with a new boundary valve. Any boundary valve that cannot be located will need excavating to enable testing.

Task 2C outcomes:

- *DMA boundary valve plans, including list of valves that need to be replaced and new valves that need to be installed*

Task 2D: Site Visit all above-ground infrastructure in each potential DMA

The above-ground infrastructure (water tanks and pumping stations) in each DMA will be inspected to determine what additional measurement devices (water level, inlet and outlet flow) are required to ensure that the DMA water balance can be correctly calculated. This is particularly relevant for water tanks within a DMA where water storage increases / decreases must be recognized to correctly calculate water losses.

Task 2D outcomes:

- *Identification of additional measurement requirements at above-ground infrastructure in each DMA*

Task 2E: Non-intrusive DMA Inflow Measurement and Preliminary Water Loss Assessment

Where possible, the DMA inflow will be measured using non-intrusive techniques (logging of existing meters and/or use of clamp-on ultrasonic flow meters). This will enable a preliminary water loss assessment for the potential DMA to be carried out.

Task 2E outcomes:

- *DMA Inlet flow measurement (where possible)*
- *DMA Water Loss Assessment where inflow measurement is possible*

Task 2F: DMA Pressure Data Collection

Pressure data will be collected in each potential DMA using both normal and high-frequency data loggers to assess the pressure profile and determine the scope for pressure management in the DMA.

Task 2E outcomes:

- *DMA pressure data*
- *Identification of scope for pressure management in the DMA*

Task 2G: Zero Pressure Tests

Where possible, a Zero Pressure Test (ZPT) will be carried out in the potential DMA. This entails closing the main inlet supply valve for the zone and recording the pressure at selected locations within the zone. All boundary valves will be manually sounded during the ZPT to make sure they close tightly and are not allowing water to pass into the zone. Should the zone fail the ZPT (positive pressure remains within the zone) then extensive investigations will be needed to locate the zone breach. Additional boundary valves may be required if zone breaches are identified.

Task 2E outcomes:

- *Confirmed DMA boundary*
- *Need for additional boundary valves*

Task 3: Customer Identification per DMA

WSO will utilize the existing GWA customer billing data to identify the number of customers and the current customer demand within each potential DMA. This will be used in the assessment of DMA water losses for those DMAs where temporary inflow measurement has been possible.

Task 3 outcomes:

- *Number of customers in each potential DMA*
- *Current customer demand in each potential DMA*

Task 4: Identification of DMA Infrastructure Requirements

For each potential DMA, the infrastructure requirements needed to implement the DMA will be identified, catalogued and provisionally costed. These will include:

- Preliminary DMA meter point pipework design and costing
- Preliminary DMA meter point chamber design and costing
- DMA boundary valve locations, including preliminary design for additional valves, where necessary.
- Preliminary DMA telemetry / SCADA requirements
- Additional pressure management requirements

Task 4 outcomes:

- *Complete list of all DMA infrastructure requirements with preliminary design and costings*

Task 5: Prioritization of Proposed DMAs

WSO will produce a priority ranking of the potential DMAs by ease of implementation and capital investment needed (least cost first). This will drive the DMA Implementation Plan with the DMAs that are easiest to implement and have lowest capital cost requirement being done first.

Task 5 outcomes:

- *Prioritized list of potential DMAs ranked by ease of implementation*

Task 6: Develop DMA Implementation Plan

The prioritized list of potential DMAs will be used to develop a 3-year to 5-year DMA implementation plan. The plan will take into account the pressure zone realignment work. The plan will set out in detail the requirements for each DMA in terms of construction requirements, boundary valve operation, telemetry and SCADA requirements, and additional pressure management requirements.

Task 6 outcomes:

- *DMA implementation Plan*

Task 7: Develop Draft Scopes for Implementation Project Contracting Elements

WSO will develop draft scope of works for the Implementation Project contracting elements.

Task 7 outcomes:

- *Draft Scope for Construction Design and Specifications*
- *Draft Scope for Water Loss Control Management including DMA boundary implementation, leak detection, pressure management and ongoing monitoring of DMA water loss levels*
- *Draft Scope for Leak Repair works*

3 PROJECT MANAGEMENT AND REPORTING

In order to ensure that the project meets GWA WSD's expectations and timeline, the project team will schedule appropriate milestone meetings to discuss project findings and scheduling. In addition to the project milestone meetings, the project team will schedule individual meetings with various departments and stakeholders as necessary. Monthly progress reports will accompany the monthly invoice that WSO will prepare.

After completing all tasks, the project team will develop a final report that includes an executive summary, a description of the study process, all analyses conducted, and findings and recommendations for implementing GWA's water loss control program. Prior to submittal of the final report, WSO will prepare a draft report for GWA staff review and incorporate comments received from GWA in preparing the final report.

- *Monthly invoicing and progress update*
- *Brief program report on water loss program recommendations*
- *Slide deck for presenting water loss program*

4 PROJECT SCHEDULE AND COST

Project Schedule

WSO understands that time is of the essence for GWA, and we can guarantee that the project will be completed in the expected timeframe with all deliverables by June 30, 2020 assuming a project start date no later than January 1, 2020.

WSO will update GWA staff regularly with project findings and the status of each task underway. WSO will conduct milestone meetings to present and discuss project findings and adjust task schedules where necessary. WSO prides itself on being accessible and responsive – we will be in close communication to ensure the on-time and complete delivery of the project’s objectives.

Additionally, WSO will schedule an in-person results presentation to discuss findings and recommendations.

PHASE 3

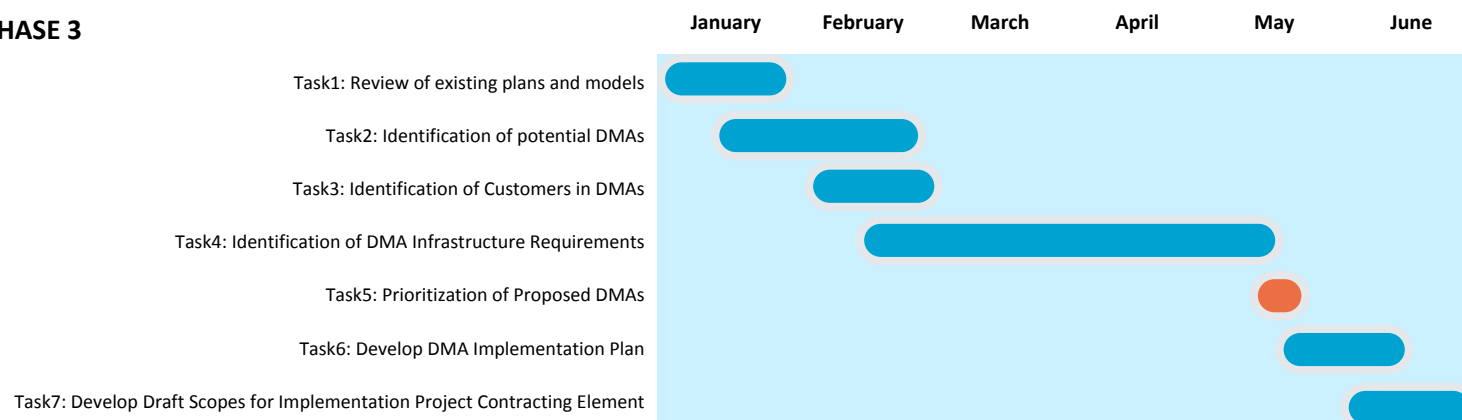


Table 1: Proposed Project Schedule, Organized by Task

Project Cost

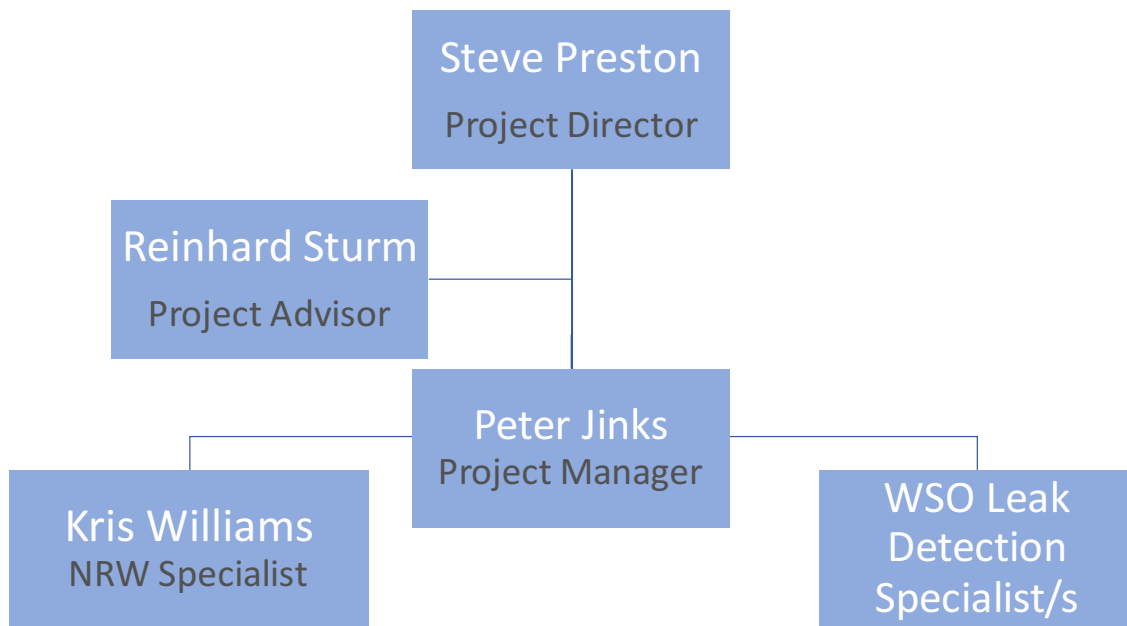
Phase 3 lump sum cost is \$250,000.

WSO will submit monthly invoices based on task percentage completion.

APPENDIX A – PROJECT ORGANIZATIONAL CHART

PHASE 3:

This phase of the project will be led by Steve Preston. Reinhard Sturm will assist in a project advisory role. Peter Jinks of WSO will serve as the project manager for this phase of the project. Peter will be based in Guam for the duration of the project. Peter will be assisted by Kris Williams on data intake and management. Kris Williams will mostly work remotely but it is planned for Kris or one of WSOs Leak Detection Specialists to be on site to assist Peter Jinks during the DMA pressure data collection task.



**EXHIBIT C**

February 3, 2021

Brett Railey, PE
Interim Chief Engineer
Guam Waterworks Authority
Gloria B. Nelson Public Service Building
688 Route 15
Mangilao, Guam 96913

Attention: Garrett Yeoh

**RE: Change Proposal 04 for Design Services for GWA's Pressure Zone Realignment and Tank Repair/Replacement, GWA Project W18-001-BND
Nimitz Hill Waterline Replacement and PRVs and Construction Management for Phase 2 Construction**

Dear Mr. Railey:

GHD is pleased to submit this change proposal to amend our Scope of Work and Fee for the Pressure Zone Realignment and Tank Repair/Replacement (Pressure Zone Realignment) project. This scope of work defines the additional design services GHD will provide for water system improvements on Nimitz Hill around Nimitz Estates and Mama Sandy areas in Piti. More specifically, the design services will include the design of a waterline replacement, revising the Nimitz District Metered Area (DMA) meter to a pressure reducing/sustaining valve (PRSV)/meter vault, and a permanent pressure reducing valve (PRV) station to replace a temporary PRV. Additionally, this scope will provide budget for construction management services for Pressure Zone Realignment Phase 2 Construction. The original project scope will be amended on a lump sum basis per the fees in the table below.

SCOPE OF WORK

Nimitz Hill Water Improvements

The detailed scope involves revising the Nimitz DMA meter to a station with a PRSV, meter, power source and SCADA panel. The PRSV station would still be on Larson Road, but moved to a lower elevation of about 557. This elevation would lower the pressure of houses on Ocean View to a maximum of 90 psi. Moving the meter will not cause any residences to be outside of the DMA.

Operations is in the process of installing a temporary PRV across the street from the Inter-Island Communications radio station on Route 6. The purpose is to alleviate immediate pressure problems in the area to stop pipe breakage due to excessive pressure. The vault is not going to be constructed to standards

**EXHIBIT C**

to support traffic loads. The scope of this change proposal will include the design of a permanent PRV station to replace the temporary. No electrical or SCADA design is included with this PRV station.

The existing waterline on Route 6 is Asbestos Cement Pipe (ACP) which is brittle and has been rupturing due to the excessively high pressure in the area. This scope will provide a design for the replacement of approximately 3,600 lineal feet of the existing ACP from the PRV station across from the radio station on Route 6 to an existing PRV after Chalan Sabana in Nimitz Estates. The waterline will bypass the existing PRV at the northeast corner of Route 6 and Nimitz Estates Road. This existing PRV will be repurposed to reduce pressure for services down Route 6.

Construction Management Budget

construction management of the construction of Pressure Zone Realignment Phase 1 has been successfully accomplished on a time and material basis. A budget was assumed for this purpose in the original Scope of Work and Fee. The Pressure Zone Realignment project is expected to have four phases and more budget is needed for construction management of the remaining three phases. This change proposal will provide budget that is estimated to cover the construction management services of Phase 2 construction.

ASSUMPTIONS AND EXCEPTIONS

- This change proposal only applies to the scope of work and contract amount. The terms of the original executed agreement still apply.

FEE SCHEDULE FOR ADDITIONAL DESIGN SERVICES

TASKS	TOTALS
Original Contract Amount	\$2,884,767
Change Order 1	\$373,670
Change Order 2	\$36,294
Contract Amount Prior to Change Proposal	\$2,921,061
Nimitz Hill Water Improvements	\$79,892
Construction Management Budget	\$200,000
Guam GRT (at 5.2%)	\$14,555
TOTAL CHANGE PROPOSAL COST	\$294,447
AMENDED CONTRACT AMOUNT	\$3,215,508



EXHIBIT C

Work that exceeds the scope of this proposal will be brought to your attention for review, approval and fee adjustment. Work performed will be billed monthly based on the estimated percent complete. We stand ready to provide the professional services necessary to assist GWA in this endeavor.

Sincerely,

A handwritten signature in black ink, appearing to read "Aaron Sutton", written over a horizontal line.

Aaron Sutton, PE, ENV SP
Project Manager

Attachments: None

Cc: file



Gloria B. Nelson Public Service Building | 688 Route 15 | Mangilao, Guam 96913
Tel: (671) 300-6846

Issues for Decision

Resolution No. 10-FY2021

Relative to Approval of the Additional Funding to the Construction Contract for the Tank Repair and Bypass Project

What is the project's objective and is it necessary and urgent?

The objective of the Tank Repair and Bypass Project is to complete needed repairs and rehabilitation to GWA water reservoirs as part of the final component of the 2011 Court Order compliance requirements. The work to be performed which requires additional funding is necessary as a result of the ongoing inspections after bypass work was completed. The Windward Hills tank is undergoing API and structural inspections (02/03/21 to 02/09/21). Preliminary comments from the API inspector recommends replacing the tank floor, metal repair, and complete interior and exterior coating. Lead has been found on the exterior paint coating which needs to be addressed through complete removal or paint encapsulation. Interior lead testing is scheduled for the week of 02/08/21.

Bypass for the Malojloj tank is underway. Once the bypass is completed, the tank will be taken offline for API/structural inspections. It is anticipated that the tank will need major repairs.

GWA management is seeking approval for the funding for the tank repairs to be inline with the inspection report repair recommendations to prevent delays placing the tanks online. Additive Bid Items considered potential repairs. Additive Bid Major repair work includes new double bottom floor, complete exterior and interior coating, cathodic protection, vent, hatch, ladder, column and base plate repair, and miscellaneous repair items. Additional repair found during inspections include lead paint removal or encapsulation.

The additional work described above is urgent because as a requirement of the 2011 Court Order, completion of the work has specific compliance deadlines which have already been surpassed.

Where is the project located?

Malojloj Reservoir

The tank is located off Highway 4 in Malojloj heading South after the Malojloj Residential Transfer Station.

Windward Hills

The tank is located off Camacho Street, Highway 4A in Talofofo heading South after Onward Talofofo Golf Club.

How much will it cost?

- Additive Bid No. 5 – Malojloj Tank Major Repair proposal submitted by AIC International, Inc. is \$1,128,298.00.
- Additive Bid No. 7 – Windward Hills Major Repair proposal submitted by AIC International, Inc. is \$1,098,564.00.
- Additive Bid No. 5 and No. 7 total is \$2,226,862.00.

GWA management is requesting a 15% contingency of \$334,029.00 to address additional repair needed that were not included in the Additive Bid major repair items.

The total requested funding amount is \$2,560,891.00.

When will it be completed?

1. Malojloj Major Repair: The Contractor shall begin work upon issuance of the Change Order Notice to Proceed (NTP) and shall be substantially completed as specified no later than 180 calendar days.
2. Windward Major Repair: The Contractor shall begin work upon issuance of the Change Order Notice to Proceed (NTP) and shall be substantially completed as specified no later than 180 calendar days.

What is the funding source?

1. CIP PW 09-09: Water Reservoir Internal/External Corrosion Assessment Program
2. CIP PW 09-11: Water System Reservoirs 2005 Improvements



CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

GWA RESOLUTION NO. 10-FY2021

RELATIVE TO APPROVAL OF THE ADDITIONAL FUNDING TO THE CONSTRUCTION CONTRACT FOR THE TANK REPAIR AND BYPASS PROJECT

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority (“GWA”); and

WHEREAS, the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, GWA currently has critical Court Order (“CO”) Projects that includes the Santa Ana, Agat-Umatat, Umatat Subdivision, Pigua Merizo, Malojloj, Windwards Hills, Kaiser, Yigo, and Astumbo No. 2 Tanks, as stated in Paragraph 29.b of the Order for Preliminary Relief Re: Deadlines for Outstanding Projects Under the Amended Stipulated Order; and

WHEREAS, Resolution No. 10-FY2020 (See Exhibit A) authorized GWA management to enter into contract with AIC, International in the amount of Five Million Four Hundred Two Thousand Three Hundred Twenty-Six Dollars (\$5,402,326.00) for base bid and select additive bid items, along with a 10% contingency of Five Hundred Forty Thousand Two Hundred Thirty-Three Dollars (\$540,233.00), bringing the total authorized funding amount to Five Million Nine Hundred Forty-Two Thousand Five Hundred Fifty-Nine Dollars (\$5,942,559.00); and

WHEREAS, GWA has issued Change Order No. 1 for Yigo No. 3 Major Repairs and is in the process of issuing Change Order No. 2 for the Agat-Umatat Major Repair; and

WHEREAS, GWA is in the process of inspecting Windward Hills tank and installing the bypass for Malojloj tank to allow inspections; and

1
2 **WHEREAS**, Tank Repair and Bypass, IFB-06-EN-2019, included Additive Bid Major
3 Repair Items No. 5 and No. 7 for the Malojloj and Windward Hills tanks, respectively (See
4 Exhibit B); and

5
6 **WHEREAS**, GWA Management is seeking additional funding to award additional
7 additive bid items for the major repair of the Windward Hills and Malojloj tanks in the amount
8 of Two Million Two Hundred Twenty-Six Thousand Eight Hundred Sixty-Two Dollars
9 (\$2,226,862.00) along with a 15% contingency of Three Hundred Thirty-Four Thousand
10 Twenty-Nine Dollars (\$334,029.00), bringing the total additional funding amount to Two
11 Million Five Hundred Sixty Thousand Eight Hundred Ninety-One Dollars (\$2,560,891.00).; and

12
13 **WHEREAS**, the funding sourced for the construction project will be from bond funds as
14 detailed in the following CIP line items:

- 15
16 • CIP PW 09-09: Water Reservoir Internal/External Corrosion Assessment Program
17 • CIP PW 09-11: Water System Reservoirs 2005 Improvements

18
19 **NOW BE IT THEREFORE RESOLVED**, the Consolidated Commission on Utilities
20 does hereby approve the following:

- 21
22 1. The recitals set forth above hereby constitute the findings of the CCU.
23 2. The CCU hereby authorizes Two Million Five Hundred Sixty Thousand Eight
24 Hundred Ninety-One Dollars (\$2,560,891.00) to fund the Windward Hills and
25 Malojloj Tank Major Repairs to bring the total project authorization to Eight
26 Million Five Hundred Three Four Hundred Fifty Dollars (\$8,503,450.00).
27 3. The CCU hereby approves the use of funding sources from the following CIP
28 line items:
29 a. CIP PW 09-09: Water Reservoir Internal/External Corrosion
30 Assessment Program
31 b. CIP PW 09-11: Water System Reservoirs 2005 Improvements
32

1 **RESOLVED**, that the Chairman certified and the Board Secretary attests to the adoption
2 of this Resolution.

3
4 **DULY AND REGULARLY ADOPTED**, this 23rd day of February 2021.

5
6 Certified by:

Attested by:

7
8 _____
9 **JOSEPH T. DUENAS**
10 Chairperson

MICHAEL T. LIMTIACO
Secretary

11
12 **SECRETARY'S CERTIFICATE**

13
14 I, Michael T. Limtiaco, Board Secretary of the Consolidated Commission on Utilities as
15 evidenced by my signature above do hereby certify as follows:

16 The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular
17 meeting by the members of the Guam Consolidated Commission on Utilities, duly and
18 legally held at a place properly noticed and advertised at which meeting a quorum was
19 present and the members who were present voted as follows:

20 AYES: _____

21 NAYS: _____

22 ABSENT: _____

23 ABSTAIN: _____

24
25
26
27 ///

28
29 ///

30
31
32 ///

Exhibit A (pg. 1 of 5)



CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3032 | guamccu.org

GWA RESOLUTION NO. 10-FY2020

**RELATIVE TO APPROVAL OF THE CONSTRUCTION CONTRACT FOR THE TANK
REPAIR AND BYPASS PROJECT**

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual and policy matters relative to the Guam Waterworks Authority (“GWA”); and

WHEREAS, the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, GWA currently has critical Court Order (“CO”) Projects that include the Santa Ana, Agat-Umatat, Umatat Subdivision, Pigua Merizo, Malojloj, Windwards Hills, Kaiser, Yigo and Astumbo No. 2 Tanks, as stated in Paragraph 29.b of the Order for Preliminary Relief Re: Deadlines for Outstanding Projects Under the Amended Stipulated Order; and

WHEREAS, GWA has advertised an Invitation for Bid (IFB-06-ENG-2019) soliciting bid proposals from experienced, responsible, and responsive bidders to construct tank bypass systems to allow for inspection and repair of the tanks; and

WHEREAS, under the Base Bid Work, the Santa Ana, Agat-Umatat, Umatat Subdivision, Pigua Merizo, Malojloj, Windward Hills, and Kaiser tank shall undergo inspection and minor repair work;

WHEREAS, should the tank inspections warrant the above tanks to undergo major repair as detailed in the Additive Bid Work, a change order shall be negotiated with the Contractor;

//

1 **WHEREAS**, under Base Bid Work, the Astumbo No. 2 tank shall undergo major repair
2 which includes complete exterior and interior tank painting, new tank floor, weld repairs,
3 cathodic protection, and miscellaneous repairs;

4
5 **WHEREAS**, under Additive Bid No. 1, the Yigo No. 3 tank shall undergo major repair
6 which includes complete exterior and interior tank painting, weld repairs, cathodic protection,
7 and miscellaneous repairs;

8
9 **WHEREAS**, IFB packages were picked up by 8 interested bidders, from which GWA
10 received bid proposals from 2 of the 8 parties before the IFB submittal deadline (See Exhibit A –
11 Abstracts of Bid); and

12
13 **WHEREAS**, GWA engineering team analyzed all bid proposals received on November
14 21, 2019 and determined AIC International, Inc. as being the lowest responsive and responsible
15 bidder and met all the bid requirements set forth by GWA; and

16
17 **WHEREAS**, GWA management finds that AIC International, Inc.'s Base Bid proposal
18 of Four Million Two Hundred Eight Thousand One Hundred Ninety-Seven Dollars
19 (\$4,208,197.00) to be acceptable (See Exhibit B – Bid Form).

20
21 **WHEREAS**, GWA Management will assess any additional funding availability from the
22 latest Capital Improvements Plan to ascertain if any or all the Additive bid items as part of this
23 IFB can be awarded later through a change order or via a subsequent CCU approval as a means
24 of maximizing system improvements efficiently; and

25
26 **WHEREAS**, GWA Management is seeking approval to enter in contract for the Base Bid
27 work with AIC International, Inc. (IFB-06-ENG-2019) in the amount of Four Million Two
28 Hundred Eight Thousand One Hundred Ninety-Seven Dollars (\$4,208,197.00), along with a ten
29 percent (10%) contingency of Four Hundred Twenty Thousand Eight Hundred Twenty Dollars
30 (\$420,820.00), bringing the total Base Bid requested funding amount to Four Million Six
31 Hundred Twenty Nine Thousand Seventeen Dollars (\$4,629,017.00); and

32 //

WHEREAS, GWA Management is seeking approval to include in such contract Additive Bid No. 1 – Yigo No. 3 Major Repair Work in the amount of One Million One Hundred Ninety-Four Thousand One Hundred Twenty-Nine Dollars (\$1,194,129.00) after entering into contract with AIC International, Inc., along with a ten percent (10%) contingency of One Hundred Nineteen Thousand Four Hundred Thirteen Dollars (\$119,413.00), bringing the total additive bid item funding amount to One Million Three Hundred Thirteen Thousand Five Hundred Forty-Two Dollars (\$1,313,542.00).

WHEREAS, the funding source for the construction project will be from bond funds as detailed in the following CIP line items:

- CIP PW 09-09: Water Reservoir Internal/External Corrosion Assessment Program
- CIP PW 09-11: Water System Reservoirs 2005 Improvements

NOW, BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve the following:

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the terms of the bid proposal submitted by AIC International, Inc. are fair and reasonable.
3. The CCU hereby authorizes the management of GWA to accept bid from AIC International, Inc. attached hereto as Exhibit B, and which is also incorporated into this Resolution in its entirety.
4. The CCU hereby authorizes the management of GWA to enter into a contract with AIC International, Inc. in the amount of Four Million Two Hundred Eight Thousand One Hundred Ninety-Seven Dollars (\$4,208,197.00) for base bid work plus the amount of One Million One Hundred Ninety-Four Thousand One Hundred Twenty-Nine Dollars (\$1,194,129.00) for additive bid item work.
5. The CCU hereby approves the funding total of Five Million Four Hundred Two Thousand Three Hundred Twenty Six Dollars (\$5,402,326.00), along with a ten percent (10%) contingency of Five Hundred Forty Thousand Two

Hundred Thirty Three Dollars (\$540,233.00), bringing the total authorized funding amount to Five Million Nine Hundred Forty Two Thousand Five Hundred Fifty Nine Dollars (\$5,942,559.00).

6. The CCU hereby approves the use of funding sources from the following CIP line items:

- a. CIP PW 09-09: Water Reservoir Internal/External Corrosion Assessment Program
- b. CIP PW 09-11: Water System Reservoirs 2005 Improvements

RESOLVED, that the Chairman certified and the Board Secretary attests to the adoption of this Resolution.

DULY and REGULARLY ADOPTED, this 28th day of January 2020.

Certified by:

Attested by:


JOSEPH T. DUENAS
Chairperson


MICHAEL T. LIMTIACO
Secretary

SECRETARY'S CERTIFICATE

I, Michael T. Limtiaco, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES:	<u>5</u>
NAYS:	<u>0</u>
ABSTENTIONS:	<u>0</u>
ABSENT:	<u>0</u>



ORIGINAL

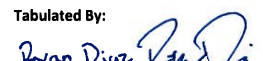
GUAM WATERWORKS AUTHORITY
ABSTRACT OF BIDSProject Name: **TANK REPAIR AND BYPASS**
Project Number: W19-003-BND IFB No.: IFB-06-ENG-2019Bid Opening Date: November. 21, 2019
Time: 3:00 PM

	Bidders Name	Section A-5 Bid Bond	CERTIFICATIONS											BID AMOUNT		
			Qualification Statement	Non Collusion Affidavit	EEO Certification	Non Segregated Facilities	Sex Offender Certification	Wage and Benefit Determination	Major Shareholder Affidavit	Special Instructions to Bidders	Addendum			BASE BID	ADDITIVE BID NO. 1	BASE + ADDITIVE
											1	2	3			
1.	MURPHY ENTERPRISES	—														
2.	VG GOZUM CONSTRUCTION	—														
3.	IAN CORPORATION	—														
4.	AYM INTERNATIONAL INC.	—														
5.	SUMITOMO-MITSUI CONSTRUCTION CO.	Federal Insurance Company 15% of bid	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	\$7,079,883	\$7,797,117	\$14,877,000
6.	GENERAL + PLUMBING	—														
7.	AIC INTERNATIONAL INC.	Fidelity and deposit company of Maryland, 15% of bid	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	\$4,208,215	\$8,602,200	\$12,810,415
8.	FRONTIER SUPPLY	—														
	GWA Estimate													\$4,039,625.01	\$10,139,655.50	\$14,179,280.51

Bids Opened and Read by:


 GLORIA P. BENSAN
 (Name and Signature)

Tabulated By:


 Ryan Dior
 (Name and Signature)

GWA Procurement Representative:


 ROLAND F. LUMONGSO
 (Name and Signature)

Witnesses:


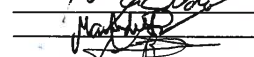
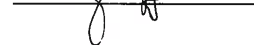







Exhibit B (pg. 1 of 4)

**TABLE I - ADDITIVE BID NO. 5 - MALOJLOJ TANK MAJOR REPAIR
TANK BYPASS AND REPAIR BID SCHEDULE**

Major repair work shall be determined after GWA's Inspector has performed a full API-653 inspection. After the API-653 inspection has been completed, GWA shall determine which Additive Bid Items should be included in the Contract through a Change Order. If GWA determines that the tank requires major repair, GWA shall have the right to issue a deductive Change Order for the minor repair work items listed in Table C.

Item No.	Description	Quantity	Unit	Amount
5.00	Malojloj - 1.0 MG (Diameter = 66', Height = 41')			
5.01	Install new double bottom tank floor, complete in place	57,650	LB	\$ 262,891.00
5.02	Install drip ring to new tank floor chimes	1,600	LB	\$ 4,051.00
5.03	Replace tank shell manway nozzle assemblies affected by new floor	1	EA	\$ 27,132.00
5.04	Complete exterior coating, including sandblasting, epoxy coating	14,000	SF	\$ 180,862.00
5.05	Complete interior coating, including sandblasting and epoxy coating	19,000	SF	\$ 224,269.00
5.06	Dehumidification equipment for coating	1	LS	\$ 65,110.00
5.07	Replace tank exterior fill gauge and interior float system assemble	1	LS	\$ 4,029.00
5.08	Remove existing grounding cables and install new grounding cables, including testing	1	LS	\$ 33,279.00

5.09	Install new tank cathodic protection system, including new conduits	1	LS	\$	11,575.00
5.10	Install new tank hatch cover	1	EA	\$	25,667.00
5.11	Install new tank vent and screen	1	EA	\$	25,813.00
5.12	Install new guardrail and roof platform	1	LS	\$	68,659.00
5.13	Install new interior tank ladder and fall arrest assembly	1	LS	\$	46,461.00
5.14	Install new exterior tank ladder and cage assembly	1	LS	\$	64,868.00
5.15	Install anchor bolts and chair assemblies	104	EA	\$	67,715.00
5.16	Center column and base repair	1	EA	\$	15,916.00
			Sub Total:	\$	1,128,297.00

**TABLE K - ADDITIVE BID NO. 7 - WINDWARD HILLS TANK MAJOR REPAIR
TANK BYPASS AND REPAIR BID SCHEDULE**

Major repair work shall be determined after GWA's Inspector has performed a full API-653 inspection. After the API-653 inspection has been completed, GWA shall determine which Additive Bid Items should be included in the Contract through a Change Order. If GWA determines that the tank requires major repair, GWA shall have the right to issue a deductive Change Order for the minor repair work items listed in Table C.

Item No.	Description	Quantity	Unit	Amount
7.00	Windward Hills - 1.0 MG (Diameter = 66', Height = 41')			
7.01	Install new double bottom tank floor, complete in place	57,650	LB	\$ 262,891.00
7.02	Install drip ring to new tank floor chimes	1,600	LB	\$ 4,051.00
7.03	Replace tank shell manway nozzle assemblies affected by new floor	1	EA	\$ 27,132.00
7.04	Complete exterior coating, including sandblasting, epoxy coating	14,000	SF	\$ 180,862.00
7.05	Complete interior coating, including sandblasting and epoxy coating	19,000	SF	\$ 224,269.00
7.06	Dehumidification equipment for coating	1	LS	\$ 65,110.00
7.07	Replace tank exterior fill gauge and interior float system assembly	1	LS	\$ 4,029.00
7.08	Remove existing grounding cables and install new grounding cables, including testing	1	LS	\$ 33,279.00

7.09	Install new tank cathodic protection system, including new conduits	1	LS	\$	11,575.00
7.10	Install new tank hatch cover	1	EA	\$	25,667.00
7.11	Install new tank vent and screen	1	EA	\$	25,814.00
7.12	Install new guardrail and roof platform	1	LS	\$	68,659.00
7.13	Install new interior tank ladder and fall arrest assembly	1	LS	\$	46,461.00
7.14	Install new exterior tank ladder and cage assembly	1	LS	\$	64,868.00
7.15	Install anchor bolts and chair assemblies	35	EA	\$	37,981.00
7.16	Center column and base repair	1	LS	\$	15,916.00
			Sub Total:	\$	1,098,564.00



Gloria B. Nelson Public Service Building | 688 Route 15 | Mangilao, Guam 96913
Tel: (671) 300-6846

Issues for Decision

Resolution No. 11- FY2021

Relative to Establishment of the GWA Rate Stabilization Fund

Background

GWA has been in consultation with its financial consultant, auditors, and bond counsel to develop a strategy to deal with sustained effect of the COVID-19 Public Health Emergency on GWA revenues and debt service coverage. In original projections of the FY2021 budget and the projections contained in the 2020B Bond Official Statement, it was anticipated that the economic downturn related to the pandemic would be of a shorter duration.

The Bond Indenture allows for the establishment of a Rate Stabilization Fund to assist in maintaining required debt service coverage. Funds transferred to the Rate Stabilization Fund reduce debt service coverage; funds transferred from the Rate Stabilization Fund increase coverage. GWA management proposes that funds originally set aside in the Working Capital Reserves for Debt Services, which was dissolved by CCU GWA Resolution 17-FY2020 be used to set up a Rate Stabilization Fund. This will make available transfers from the Rate Stabilization Fund to help meet minimum debt service coverage requirements in future years.

What is the project's objective and is it necessary and urgent?

The Rate Stabilization Fund will provide GWA with an important mechanism to manage reserves and meet debt service coverage requirements. It is necessary to enable GWA to most effectively address the financial impacts of the COVID-19 pandemic. It is urgent insofar as it will facilitate near-term compliance with required debt service coverage levels and inform in GWA's development of GWA's FY 2022 – 2024 rate application update to be submitted by March 31, 2021 per PUC Order in Docket No. 19-08.

Where is the location?

The Rate Stabilization Fund will be set up as a separate account under control of the trustee.

How much will it cost?

There are no costs per se involved in the establishment of the fund, simply a transfer of reserves. It is proposed that no more than \$11.4 million be placed into this account.

When will it be completed?

The Rate Stabilization Fund will be established before the end of FY21.

What is the funding source?

Funds would be transferred from GWA's Working Capital Reserves to the Rate Stabilization Fund, a reserve fund held by the Trustee. Working Capital Reserves were increased in FY 2020 through the dissolution of the Working Capital Reserves for Debt Services that were previously set aside to meet the CCU targeted debt service coverage ratio.

The RFP/BID responses (if applicable):

Not applicable. GWA will work with the current trustee.



CONSOLIDATED COMMISSION ON UTILITIES
Guam Power Authority | Guam Waterworks Authority
P.O. Box 2977 Hagatna, Guam 96932 | (671)649-3002 | guamccu.org

GWA RESOLUTION NO. 11-FY2021

RELATIVE TO ESTABLISHMENT OF A GWA RATE STABILIZATION FUND

WHEREAS, under 12 G.C.A. § 14105, the Consolidated Commission on Utilities (“CCU”) has plenary authority over financial, contractual, and policy matters relative to the Guam Waterworks Authority (“GWA”, “Authority”); and

WHEREAS, the Guam Waterworks Authority (“GWA”) is a Guam Public Corporation established and existing under the laws of Guam; and

WHEREAS, the CCU recognizes that sound financial and risk management entails the strategic deployment of financial reserves to cover cash flow variations from short term volatility in revenues and expenses, downturns in revenues, and unanticipated and unforeseeable expenses; and

WHEREAS, the CCU also recognizes that financial reserves and reserve policies are major factors that bond rating agencies study in determining the creditworthiness of an issuer which in turn can impact interest rates on debt issuance; and

WHEREAS, the CCU also recognizes that reserves, when properly established and applied can be used as a tool for mitigating water rate fluctuations influenced primarily by (1) volatile and temporary financial adversities; and/or (2) debt service coverage requirements set forth by bond covenants and/or regulatory entities; and

WHEREAS, GWA Resolution No. 17-FY2020 Relative to Adopting a Debt Service Coverage Target of 1.50 and a Working Capital Reserve of 120 Days of Operating and Maintenance Expense dissolved the Working Capital Reserves for Debt Services and provided for the transfer of the related cash balances into the Working Capital Reserve of approximately \$11.4 million; and

WHEREAS, *Section 1.01 Definitions* of the Bond Indenture defines Net Revenues (as used in the calculation of debt service coverage) for any period as (a) the sum of (i) all of the Revenues (other than Payment Agreement Receipts) received during the period plus (ii) the aggregate amount of all transfers from the Rate Stabilization Fund to the Revenue Fund during such period, less (b) the sum of (x) all Operations and Maintenance Expenses incurred during such period, plus (y) the amount of all transfers from the Revenue Fund to the Rate Stabilization Fund during such period; and

WHEREAS, *Section 5.02 Allocation of Revenues* of the Bond Indenture states that funds flow into the Rate Stabilization Fund in the amount specified for such month in a Certificate of the Authority which also certifies that such amount is consistent with the annual budget established by the Authority, and *Section 6.08 Authority Budgets* of the Bond Indenture states that the Authority, as part of the annual budget, may transfer funds to or from the Rate Stabilization Fund each month; and

WHEREAS, revenue loss and economic disruption associated with the COVID-19 Public Health Emergency will impact GWA financial performance; and

WHEREAS, a Rate Stabilization Fund is designed to mitigate rate spikes and allow the smoothing of annual rate increases; and

NOW BE IT THEREFORE RESOLVED, the Consolidated Commission on Utilities does hereby approve the following:

1. The recitals set forth above hereby constitute the findings of the CCU.
2. The CCU finds that the establishment and implementation of a Rate Stabilization Fund serves to help address financial risks associated with utility operations and capital financing.
3. The CCU finds that the adoption of this policy promotes best practice in utility management by establishing an additional mechanism for managing uncertainties and risks and promoting predictable rates consistent with community expectations and acceptability.

4. Given that COVID-19 related financial impacts are projected to affect GWA financial performance throughout FY 2021 – 2024. The CCU amends the FY2021 budget and hereby certifies that no more than \$11.4 million will be transferred from GWA’s Working Capital Reserves into a Rate Stabilization Fund.
5. GWA transfers to and from the Rate Stabilization Fund are to be structured to enable GWA to target achievement of a minimum Debt Service Coverage ratio of 1.3x during the pendency of adverse financial conditions that occasion deferral of GWA’s conformance with previously established CCU and PUC policies related to targeted debt service coverage of 1.50x and Working Capital Reserves equal to at least 120 days of annual Operations and Maintenance expenses.
6. The CCU hereby further directs the management of GWA to set up the Rate Stabilization Fund as a separate account of the Authority held by the Trustee, segregated from other Authority Funds, and managed in a manner consistent with the Authority’s Indenture (dated 2005 as amended).
7. The CCU directs that any planned utilization (transfers out) of the Rate Stabilization Fund will be formally approved by the CCU as part of the annual approval of the budget and that any interest earned on the Rate Stabilization Fund will be accounted for as general revenues and transferred into the GWA Revenue fund.

RESOLVED, that the Chairman certified, and the Board Secretary attests to the adoption of this Resolution.

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DULY AND REGULARLY ADOPTED, this 23rd day of February 2021.

Certified by:

Attested by:

JOSEPH T. DUENAS

Chairperson

MICHAEL T. LIMTIACO

Secretary

SECRETARY'S CERTIFICATE

I, Michael T. Limtiaco, Board Secretary of the Consolidated Commission on Utilities as evidenced by my signature above do hereby certify as follows:

The foregoing is a full, true and accurate copy of the resolution duly adopted at a regular meeting by the members of the Guam Consolidated Commission on Utilities, duly and legally held at a place properly noticed and advertised at which meeting a quorum was present and the members who were present voted as follows:

AYES: _____

NAYS: _____

ABSTENTIONS: _____

ABSENT: _____

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Management Report

GWA CCU Work Session, February 16, 2021



Update to Workforce Availability

GWA Workforce availability as of January 15, 2020

Healthy	362	97.6%
Sick, not COVID-19 related	1	0.3%
Employee with COVID-19, active case	1	0.3%
COVID-19 Medical Risk	1	0.3%
Military Leave	5	1.3%
LTD	1	0.3%
	371	100%

Total		
Healthy/Reporting for duty at worksite	346	93.3%
Healthy/Reporting for duty - Part Teleworking and Part Reporting for duty at worksite	9	2.4%
Healthy/Reporting for duty - Teleworking	7	1.9%
Employee sick - symptoms unrelated to COVID-19	1	0.3%
Military Leave	5	1.3%
LTD/Workers Comp	1	0.3%
Employee with COVID-19, active case	1	0.3%
Employee or household member is at medical risk (i.e. COVID-19 vulnerable)	1	0.3%
	371	100%

GWA Workforce Vaccine Status

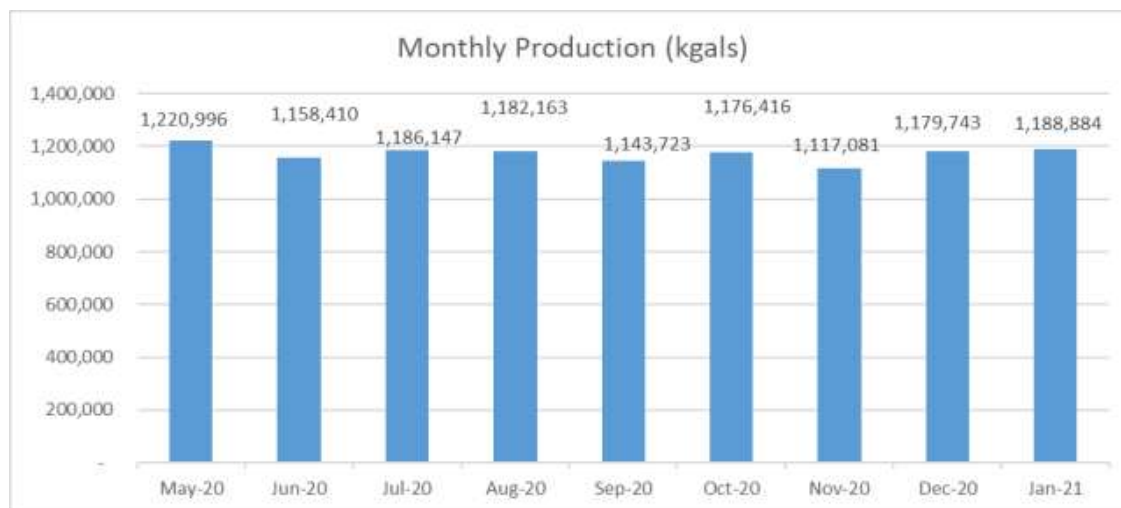
First Shot	70	18.87%
Second Shot	12	3.23%
Did Not Receive Shot	289	77.90%
	371	100.00%

Operations Update

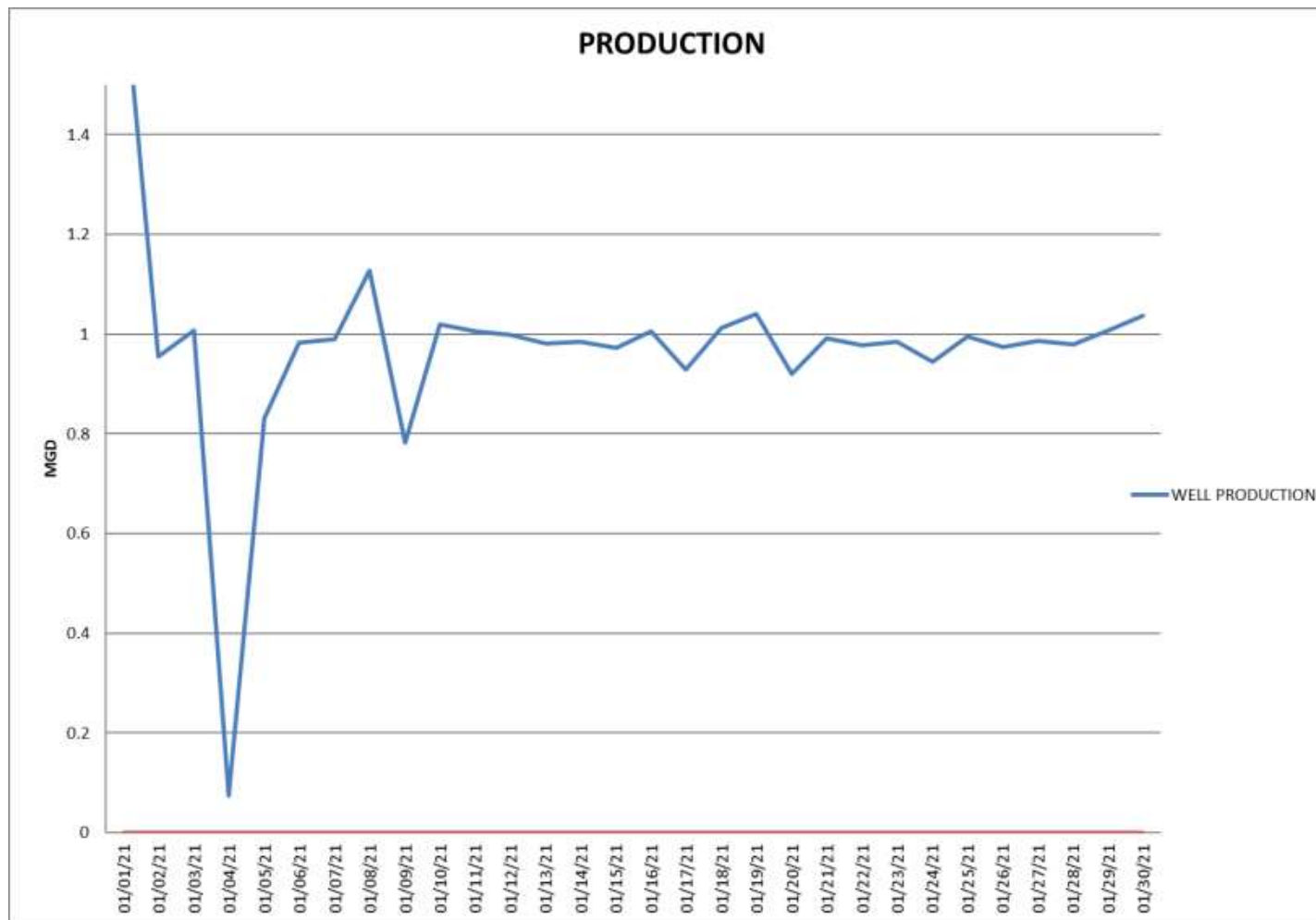
Production (January 2021)

Monthly Production Summary - January 2021				
Deep Wells			34.9 MGD	
Active wells =	93	of 120		
Avg days in operation =	31	days		
Total Production =	1,081,362	Kgals		
Springs			0.32 MGD	
Avg days in operation =	31	days		
Total Production =	9894	Kgals		
Ugum Surface Water Plant			2.2 MGD	
Avg days in operation =	31	days		
Total Production =	67,520	Kgals		
Tumon Maui Well			0.97 MGD	
Avg days in operation =	31	days		
Total Production =	30,108	Kgals		
			1,188,884	Kgals
			38.4 MGD	

DW Status as of 1/31/2021									
Active	93								
Grounded motor or Pump Failure	11	A26-D03-D09-F06-F07-F13-F16-M06-M17A-Y16-Y20							
Out of commission	8	A02-A07-A28-D05-D13-M14-MJ01-MJ05							
Temporarily Secured	2	A23-A25							
Standby	6	A10-A29-D02-D24-F05-F10							
TOTAL	120								

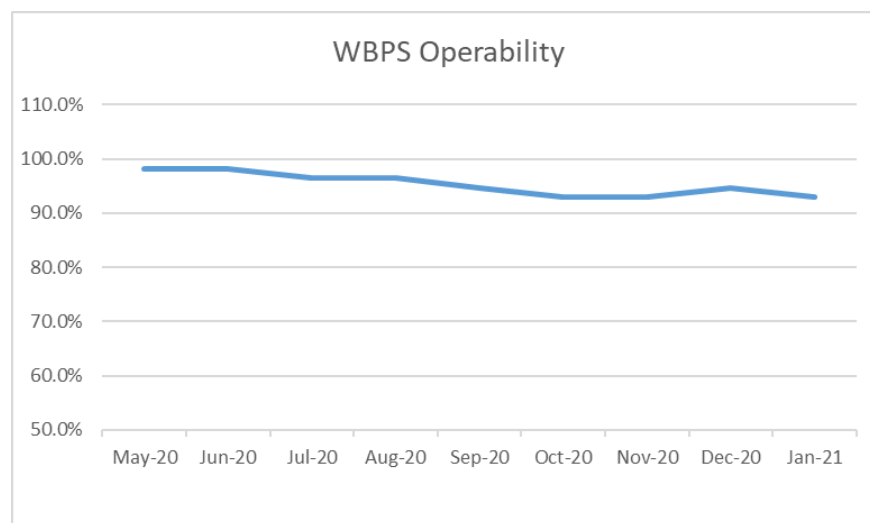


Tumon Maui Well Production (January 2021)

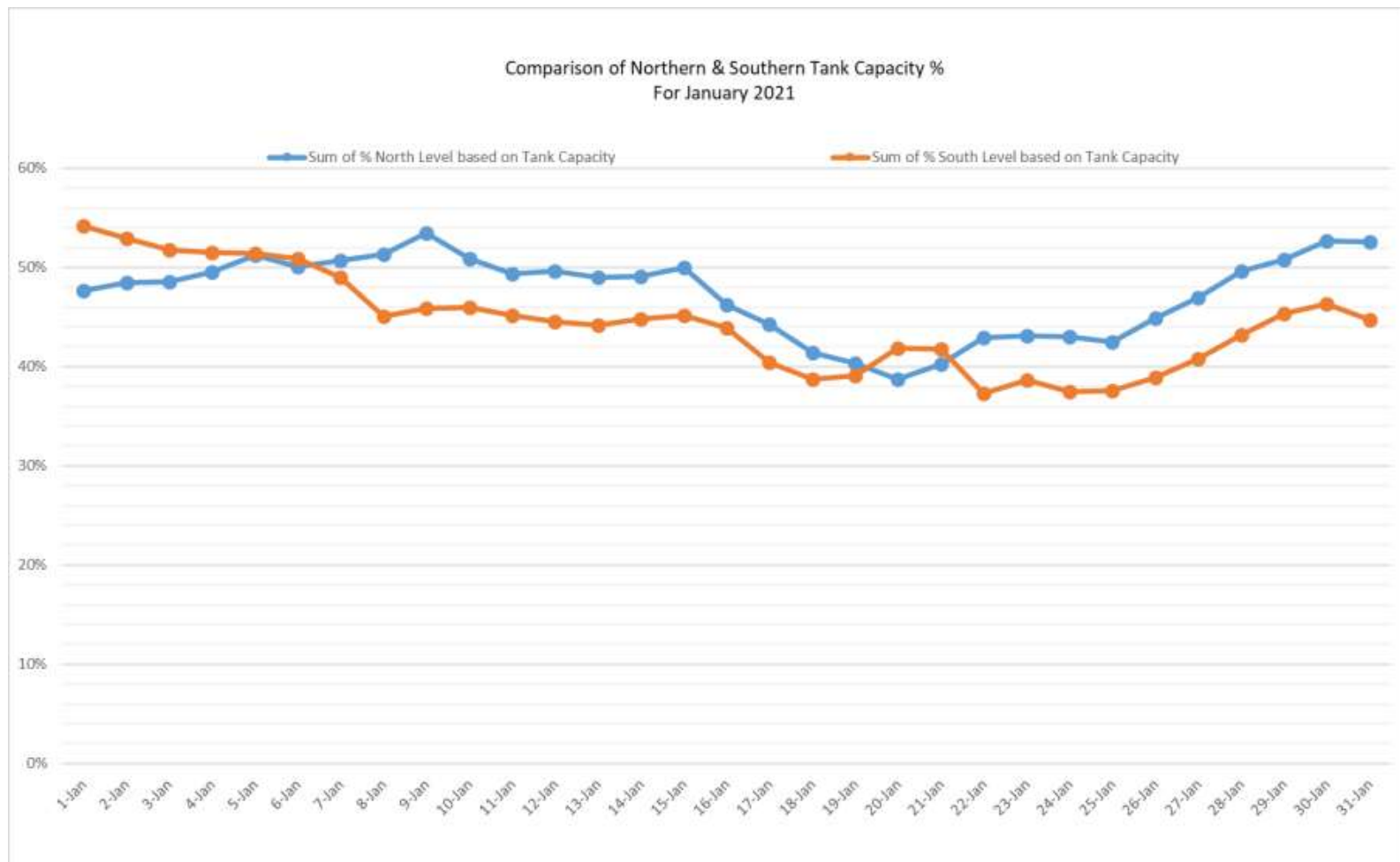


Distribution (January 2021)

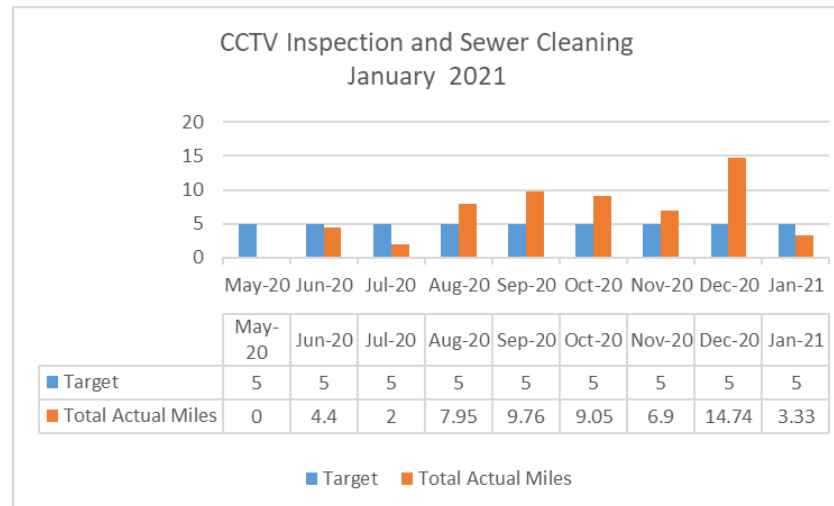
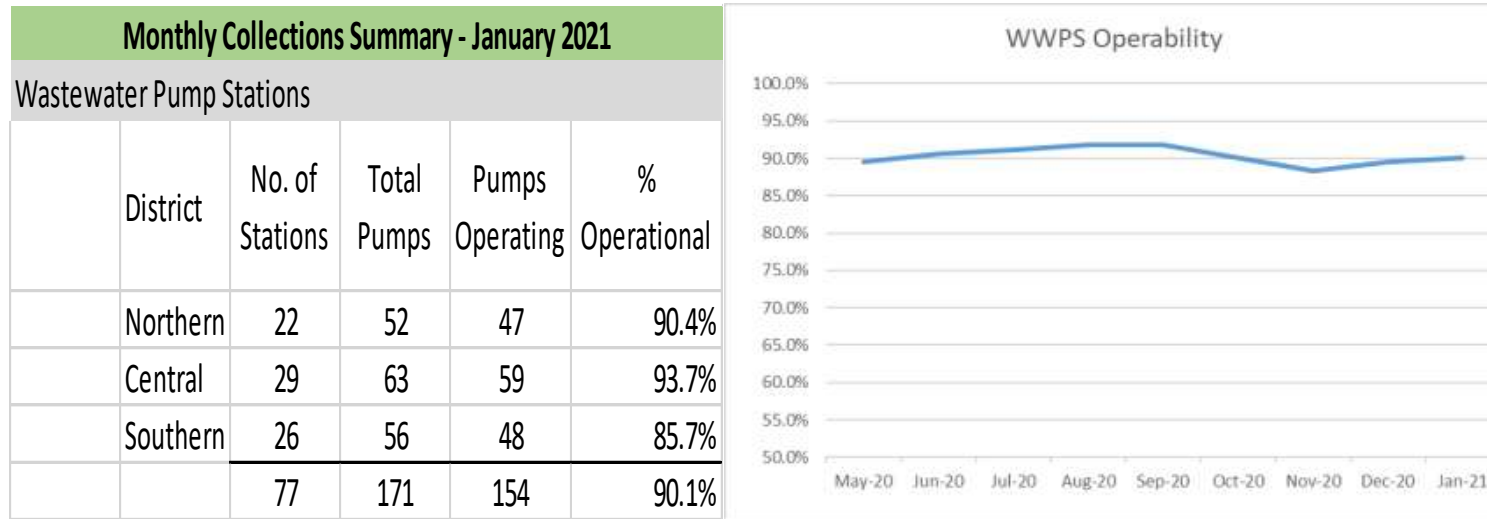
Monthly Distribution Summary - January 2021					
Water Booster Pump Stations					
	District	No. of Stations	Total Pumps	Pumps Operating	% Operational
	Northern	13	26	24	92.3%
	Central	7	15	13	86.7%
	Southern	7	15	15	100.0%
		27	56	52	92.9%



Distribution – Tank Levels (January 2021)



Wastewater Collections (January 2021)



76

Wastewater Collections –Cleaning/Jetting (January 2021)

Pia Marine

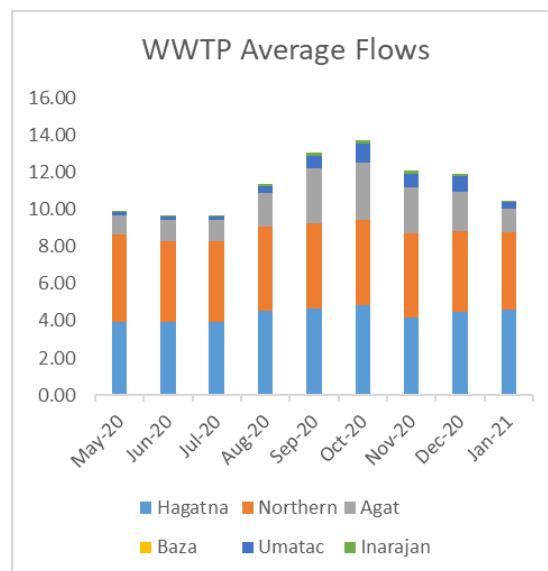


Hagatna /Anigua



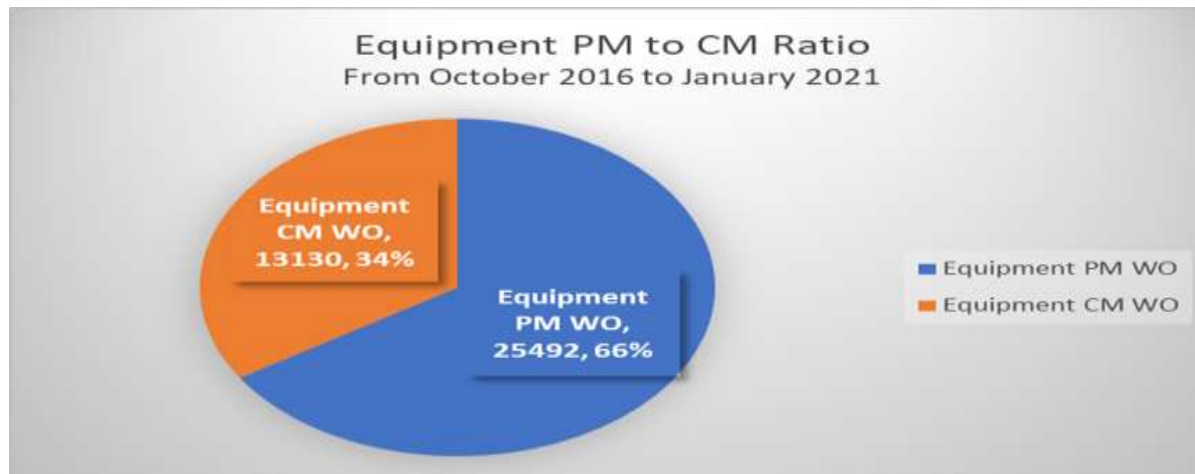
Wastewater Treatment (January 2021)

Monthly Wastewater Treatment Summary - January 2021				
WW Treatment Plants - Flows				
	Facility	Avg. Daily Flows	Sludge (lbs)	Sludge Disp. (\$)
	Hagatna	4.58	249,740	\$ 22,477
	Northern	4.2	1,167,660	\$ 105,089
	Agat	1.23	44,400	\$ 3,996
	Baza	0		
	Umatac	0.39		
	Inarajan	0.07		
		10.47	1,461,800	\$ 131,562

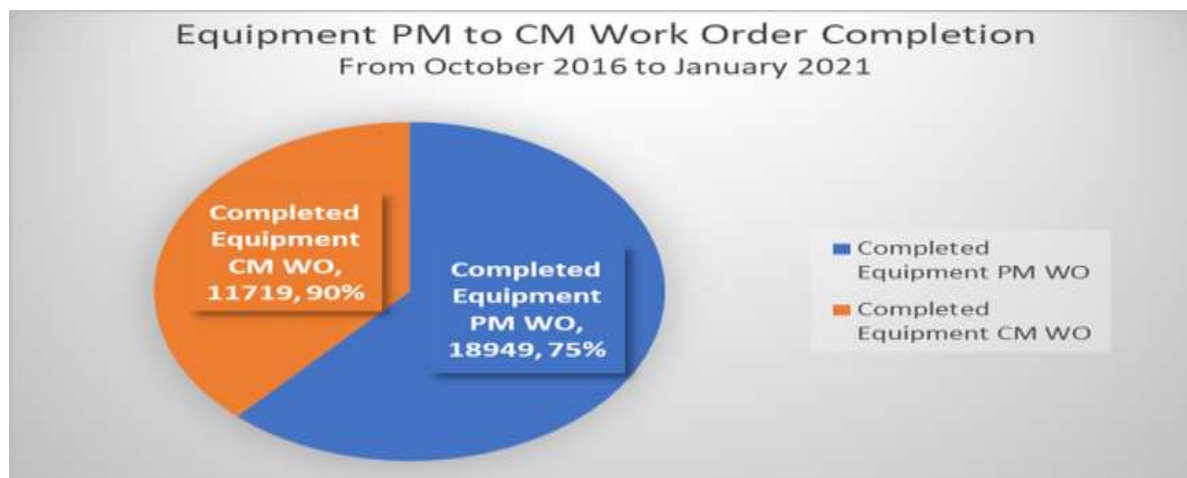


Asset Management (through January 2021)

I. Equipment Preventive Maintenance to Corrective Maintenance *Ratio*

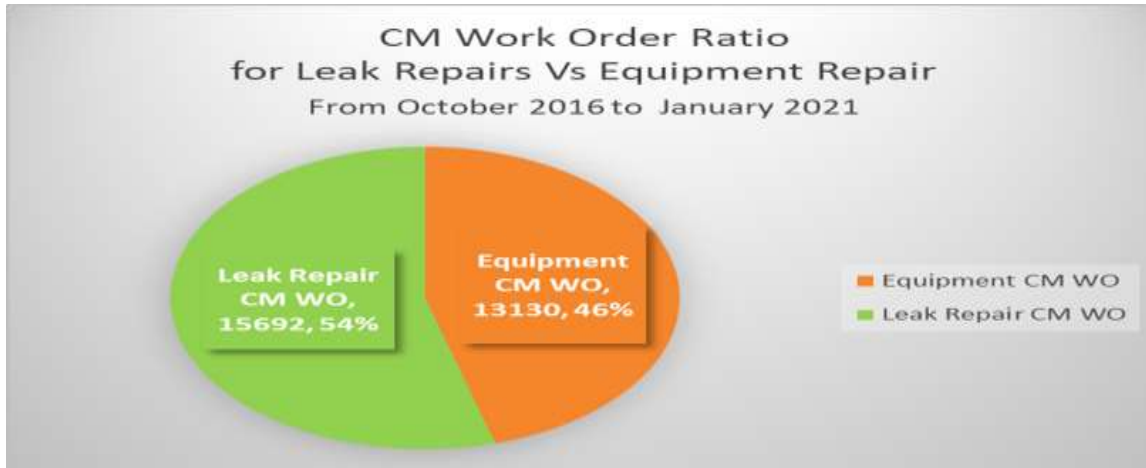


II. Equipment Preventive Maintenance to Corrective Maintenance *Work Order Completion*



Asset Management (January 2021)

III. Corrective Maintenance Work Order **Ratio** for Leak Repairs vs. Equipment Repair



IV. Corrective Maintenance Work Order **Completion** for Leak Repairs vs. Equipment Repair



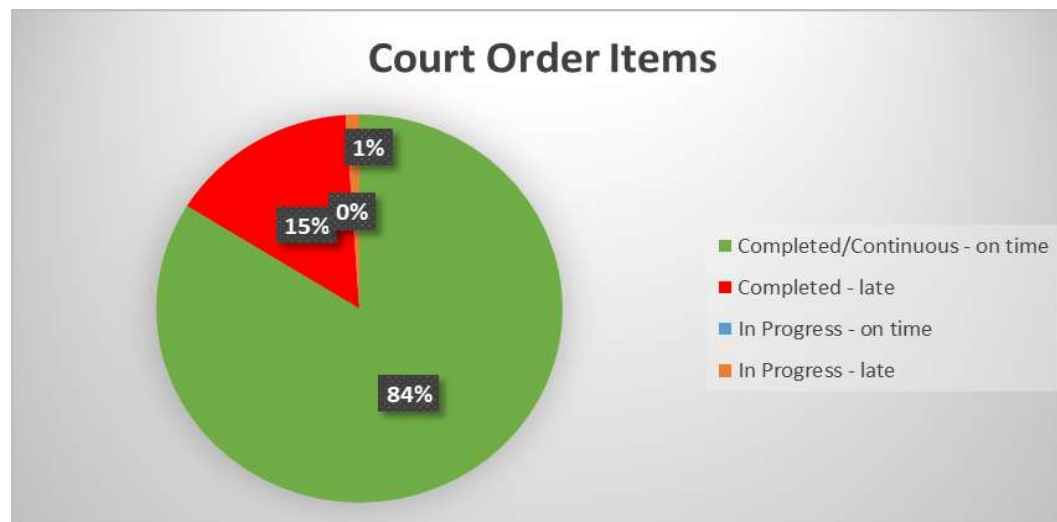
One Guam Update (through January 2021)

- 01- TMW
 - Inspection was on January 26, 2021.
- 04-OEA Projects
 - Observation Wells/NGLA
 - GWA is still waiting on formal response from OEA regarding the approval of the extension on the grant funds. GWA will sign the Temporary Construction Easements (TEC) and award the new wells contract to maximize time for the 1-year TCE term.
 - WERI is still determining the final cost for GWA and DOD for long term data collection and analysis for the observation wells. An MOA will be finalized once this information is finalized. Maria Lewis will brief the DOD. MOA will be presented to CCU prior to GWA signing MOA.
- 05- Water to Camp Blaz
 - GWA provided a response letter regarding GWA support and approval regarding water service to Camp Blaz; waiting for Marines to respond and date when the water service is required.
- 06-Strategy/Framework Discussion
 - Meeting between GWA & DoD Engineering will be scheduled for Jan. 29 at 9am at GPWA Fadian Mangilao, 3rd floor, CCU Conference Room.
 - The results from the meeting will be discussed at the next One Guam meeting of Feb. 5
- 07-Property Transfers
 - Transfer of Navy Laterals at Murray Road to GWA
 - Waiting for endorsement from CNIC, then NAVFAC RE will prepare the deed and have review by Legal and RECO. If no changes are made, then will go to Real Estate Headquarters. Once it is signed off, it can complete the transferred to GWA.
 - NAVFAC determined no concern with GWA doing a visual inspection prior to the transfer. GWA will approach the transfer like other infrastructure asset transfers, and hope to complete prior to DOD completing the review of the deeds.
- 30-Other
 - Umatac / Cetti Bay Easement
 - Waiting on approval from Captain Grimes.

- Possible Navy WW Diversion to Agat
 - Navy and GWA are discussing the possible Navy wastewater diversion to the Agat Santa Rita Wastewater Treatment Plant. Additional information is needed, such as what kind of costs and savings are involved to move forward.
- GWA Operation Staff, Peter Cruz and Mancini Santos did a presentation on GWA's Disinfection Process at the virtual AWWA Hawaii Section/Western Pacific Sub-Section – Webinar/ Workshop on Safe Drinking Water Regulations.

Court Order Summary (January 2021 – no changes)

	Total Items	On-time Items Completed / Continuous	In Progress - late	Completed - Late	In Progress - on time	Performance %
Court order total	93	78	1	14	0	98.90%



	Court Order Items	%	Performance (on-time or completed)
Completed/Continuous - on time	78	84%	98.9%
Completed - late	14	15%	
In Progress - on time	0	0%	
In Progress - late	1	1%	
Totals	93	100%	

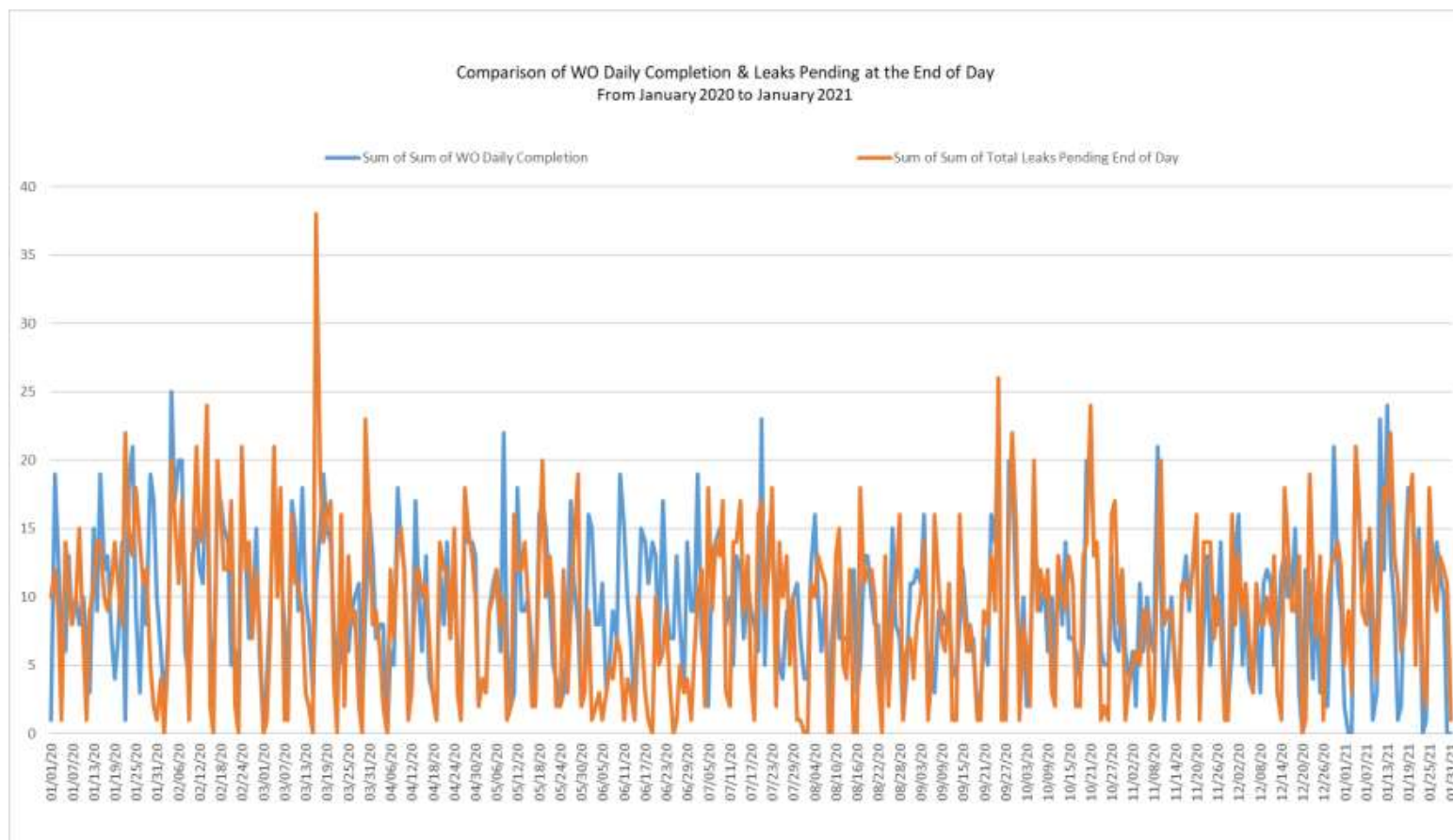
Court Order – Status Information (January 2021)

- 1 item delayed - The Court Order is down to one item remaining, § II, (C), (29) – Storage tank Repair. Restoration, Replacement or Relocation – which is the item that will take longer than the “end” of the court order. That makes us 98.9% done with the CO.
- Final Date to complete all Court Order items will be delayed past December 31, 2020.
 - CO 29(b) has been expanded by 31% beyond the original Court Order Requirements
 - General Counsel filed a motion and proposed order to District Court.
 - Additional impact resulted from delay of 2020 Bond issuance and there is also delay due to COVID-19 impacts
- Overflow or Bypass events reported to USEPA (for January 2021):
 - January 9, 2021: SSO#363 – Vietnam Memorial Highway, Mangilao – FOG
 - January 9, 2021: SSO#362 – ET Calvo Parkway, Tamuning – FOG
 - January 21, 2021: SSO#368 – Mamajanao SP – Heavy Rain
 - January 21, 2021: SSO#369 – Serenu Street, Tamuning – Heavy Rain
 - January 27, 2021: SSO#371 – Cabayero Road, Mongmong – debris in the line
 - January 29, 2021: SSO#373 – Ysengsong Road, Dededo – DPW operator damaged line while clearing inside of a ponding basin.
 - January 31, 2021: SSO#374 - Ch RS Sanchez Mongmong – FOG

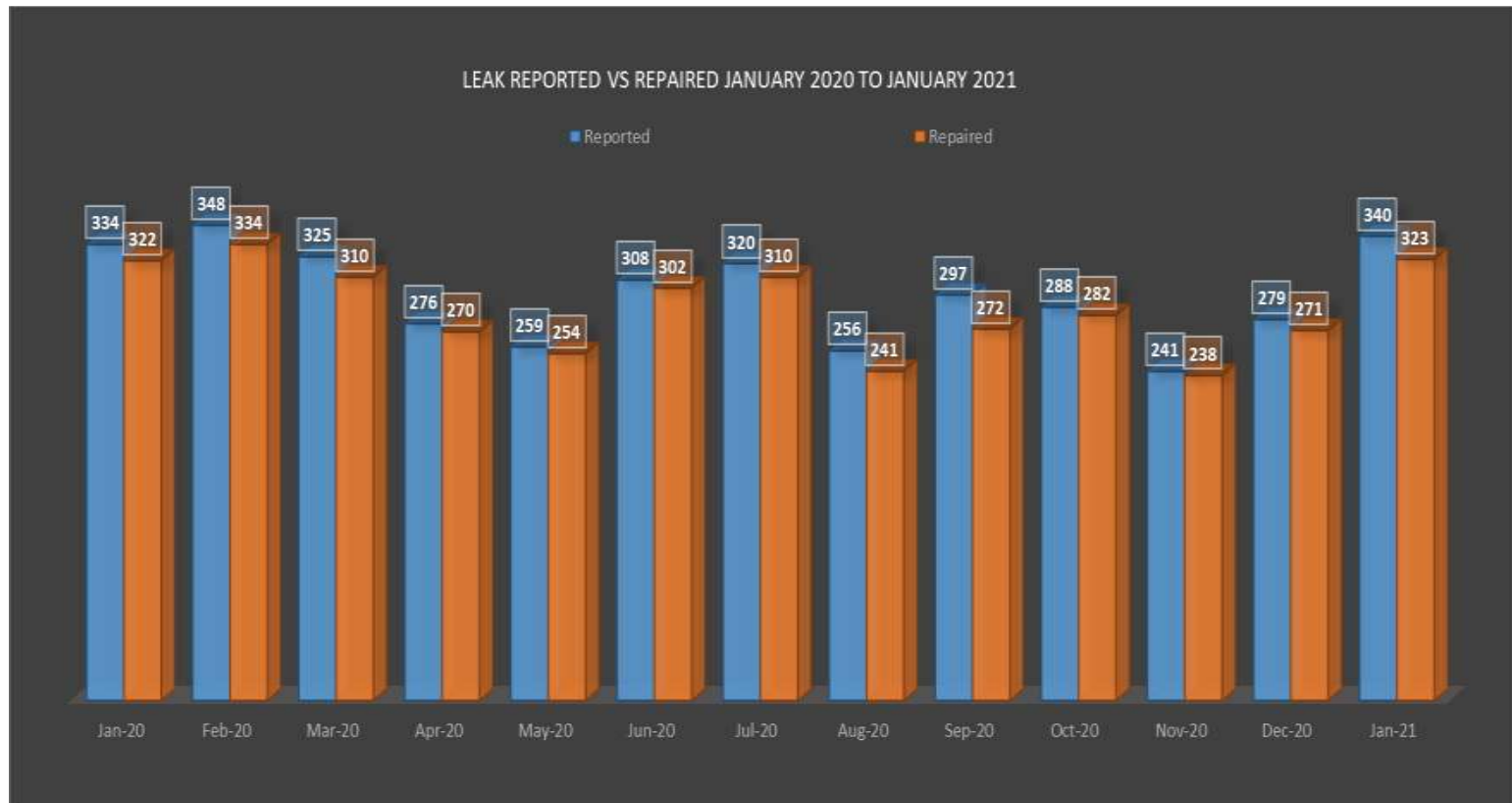
Land Acquisition Summary (through January 2021)

GWA Facility	Location	Gov. or Private Property	Land Acquisition Status
Tanks	Astumbo	Gov't. - CLTC	Petition of Land Registration package forwarded to Attorney General by DLM 11/04/19. 3 rd follow up update status request emailed to DLM 12/14/2020.
	Piti	Private	Received final comments from DoAg. Waiting on the archaeological report before we can submit 299 form.
	Airport	Private	Family attorney to forward for court approval. 12/22/2020. Sent follow up email to family attorney for court petition approval update 02/04/2021
Deep Wells	AG-12	Dept. of Agriculture/Manhita Farms	Right of Entry Agreement sent to Dept of AG for signature 05/24/18. 2 nd follow up sent on 09/12/18. 3 rd follow up sent on 04/10/19. Retracement Survey Property Map filed and recorded at DLM 7/10/19. DCA to proceed with survey work for parceling of AG-12 property 01/25/2021.
Booster Pump Station	Agfayan	Private	TGE working on structural design for pump station area for L28, B19, T3734, Inarajan 11/07/19.
Asan Springs	Asan	Federal	In order for NPS to issue a land ROW agreement with GWA, NPS has to complete NEPA first. GWA has HDR under contract to perform this work and an Environmental Assessment will be developed. The permit for the biological survey was submitted on 6/12/2020 and was signed by NPS on 1/22/2021. HDR is planning to perform the biological survey at Asan Springs in the month of February 2021. An archaeological survey is also needed to complete the EA requirement, further coordination between NPS and SHPO is pending to determine necessary approach for an archaeological survey.

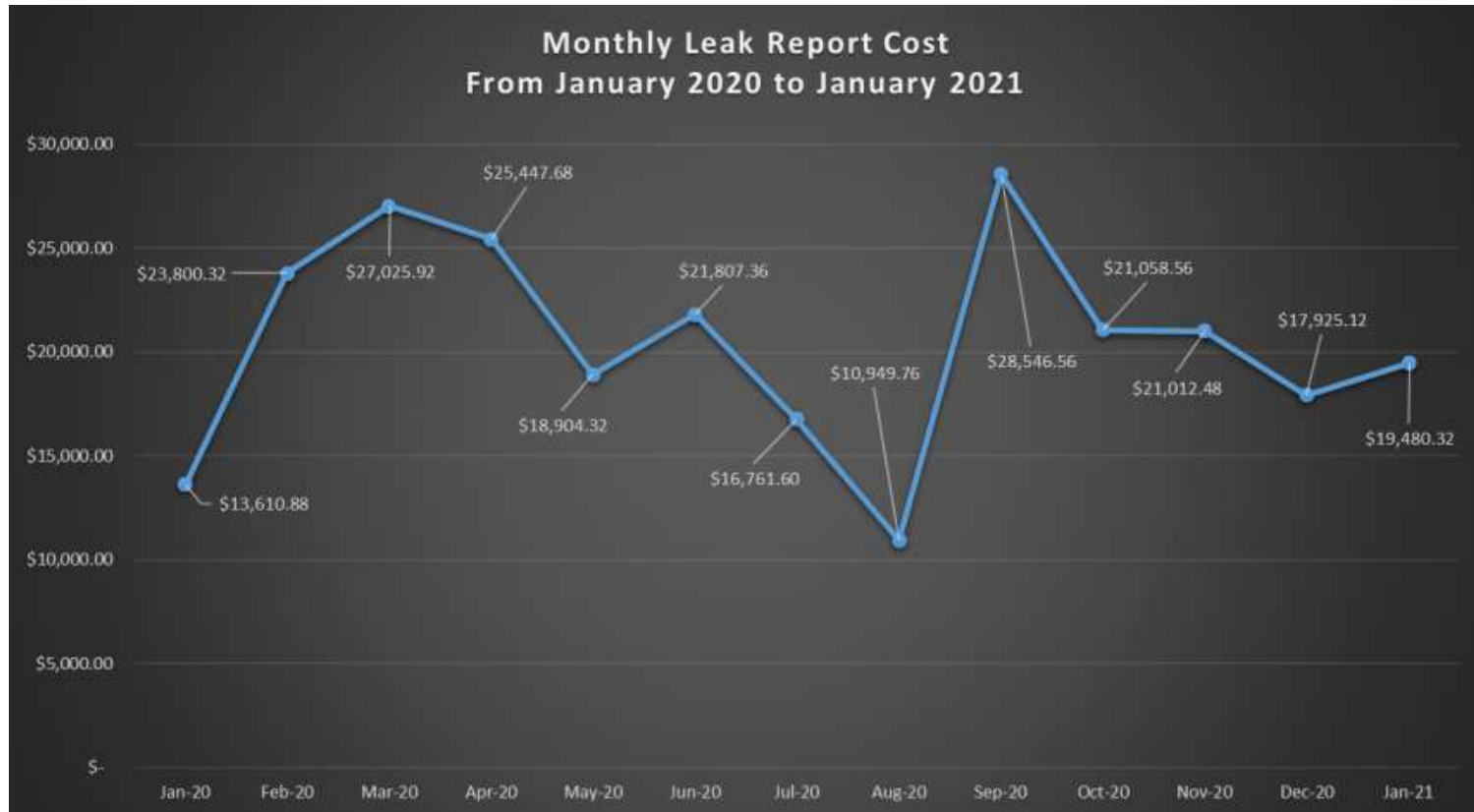
Leak Repair Summary (through January 2021)



Comparison of Leaks Reported vs. Leaks Repaired (through January 2021)



Monthly Leak Report Cost (through January 2021)



Assumptions:

1. Leak rate = 4 gpm
2. Cost per kgal = \$4.00



COVID-19 impact on collections





Timeline

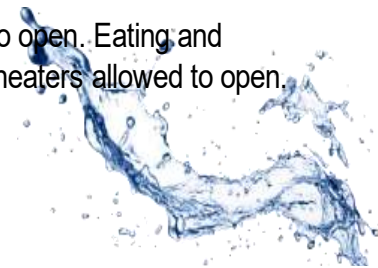
- March 14, Governor of Guam issues Executive Order 2020 -03 declaring a state of emergency to respond to COVID -19
- March 16, GWA management begins implementation of essential operations only
- March 19, Governor of Guam orders prohibition on gatherings, mandatory social isolation and shuts down non-essential government offices and private business.
- May 10, Guam placed in Condition of Readiness 2; gatherings limited to 10 people, schools and public parks and beaches remain closed.
- June 1, Governor of Guam establishes the Guam Small Business Pandemic Assistant Grant
- June 22, first batch of Pandemic Unemployment Assistance claims paid out.





Timeline continued

- July 20, Guam placed in Condition of Readiness 3; gatherings limited to 50 people, schools, public parks and beaches and non -essential business allowed to open. 314 COVID -19 cases and 5 deaths.
- August 16, Guam placed in Condition of Readiness 1; mandatory social isolation and shuts down non - essential government offices and private business. 516 COVID -19 cases and 5 deaths.
- October 3, restrictions relaxed, gatherings limited to 5 people, places of worship, public parks and beaches and additional non -essential business allowed to open. 2,699 COVID -19 cases and 51 deaths.
- December 24, restrictions relaxed, gatherings limited to 15 people, Eating and Drinking Establishments allowed to operate at 25%. 7,257 COVID -19 cases and 121 deaths.
- Pandemic Unemployment Assistance ends on December 31, 2020 but then extended to March 13, 2021.
- January 16, 2021 Guam placed in Condition of Readiness 2; schools allowed to open. Eating and Drinking Establishments allowed to operate at 50%; Game rooms and movie theaters allowed to open. 7,485 COVID -19 cases and 128 deaths.





Relief for Residential and Commercial Customers

- March 16 GWA suspends disconnections.
- May 19, GWA begins outreach to customers in arrears to sign up for payment plans.
- June 2020, GWA plan to begin disconnections starting July 1 is discussed w/ CCU but deferred pending more time for public notice.
- June 16, 2020 Resolution 30 -2020 passed allowing Residential and Commercial Customers to enter 12 -month payment plans.



Payment Plans Entered January 1, 2019 to December 31, 2020

Residential			
	2019	2020	Incr/Decr
Number of Payment Plans	7,634	4,008	-47.5%
# of Payments During Pay Plan	13,848	4,609	-66.7%
Pay Plan Amount + Total Amount Billed During Pay Plan	\$3,352,412	\$1,794,062	-46.5%
Total Paid During Pay Plan	\$2,219,346	\$902,985	-59.3%
Average Payment Amount	\$160.26	\$195.92	22.3%
Commerical			
	2019	2020	Incr/Decr
Number of Payment Plans	129	69	-46.5%
# of Payments During Pay Plan	285	145	-49.1%
Pay Plan Amount + Total Amount Billed During Pay Plan	\$3,837,271	\$856,900	-77.7%
Total Paid During Pay Plan	\$1,404,308	\$466,582	-66.8%
Average Payment Amount	\$4,927.40	\$3,217.80	-34.7%

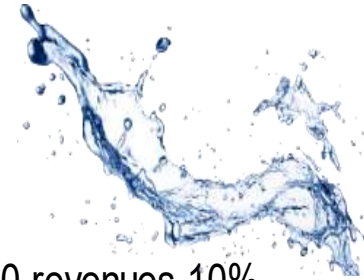


Results of Customer Outreach to Establish Pay Plan

- 13,480 calls; average of 1,497 a month
- 27.5% contact rate; 3,714 successful contacts; average of 412 a month
- 1,110 pay plans established; average of 123 a month



If you are impacted financially by recent events contact us to arrange for a payment plan. Let's get through this together.

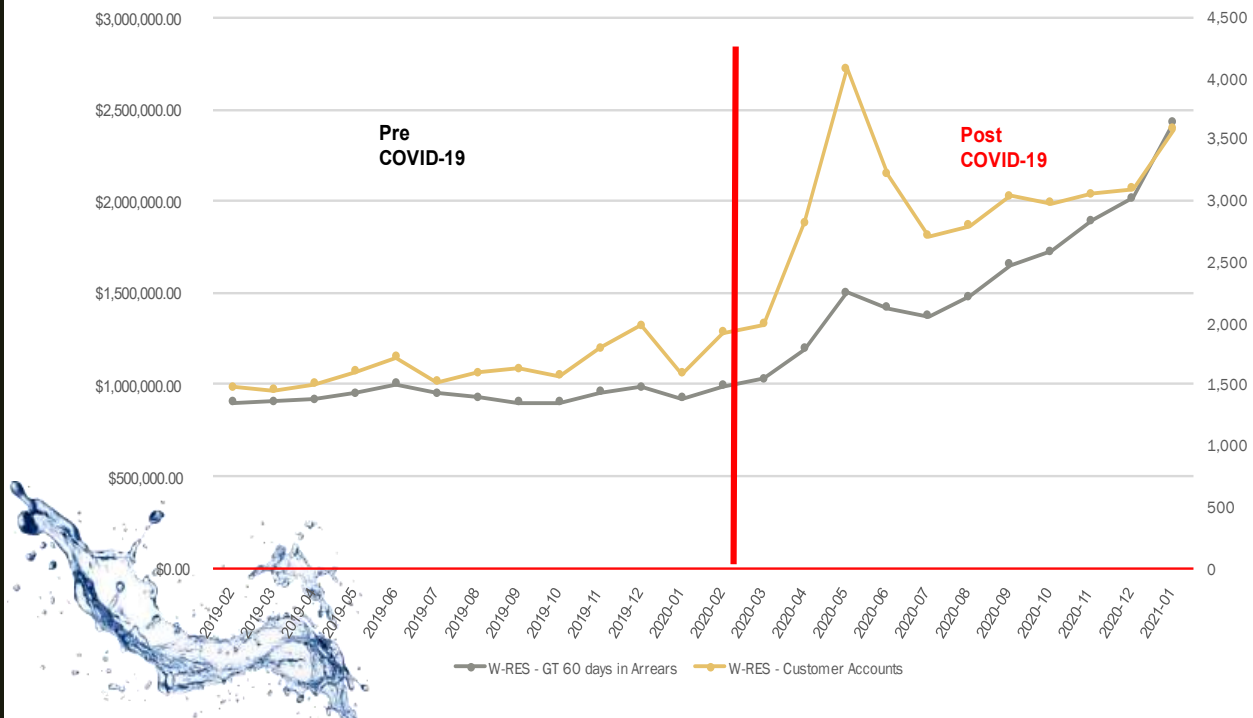


Current Status

- Fiscal year to date operating revenues down 14%. FY2020 revenues 10% below approved budget.
- Residential receivables greater than 60 days increased approximately 250% since COVID-19 pandemic started.
- Commercial receivables greater than 60 days increased approximately 34% since COVID-19 pandemic started.
- Number of Residential Payment Plans entered during 2020 decreased by 48% year over year.
- Number of Commercial Payment Plans entered during 2020 decreased by 47% year over year.

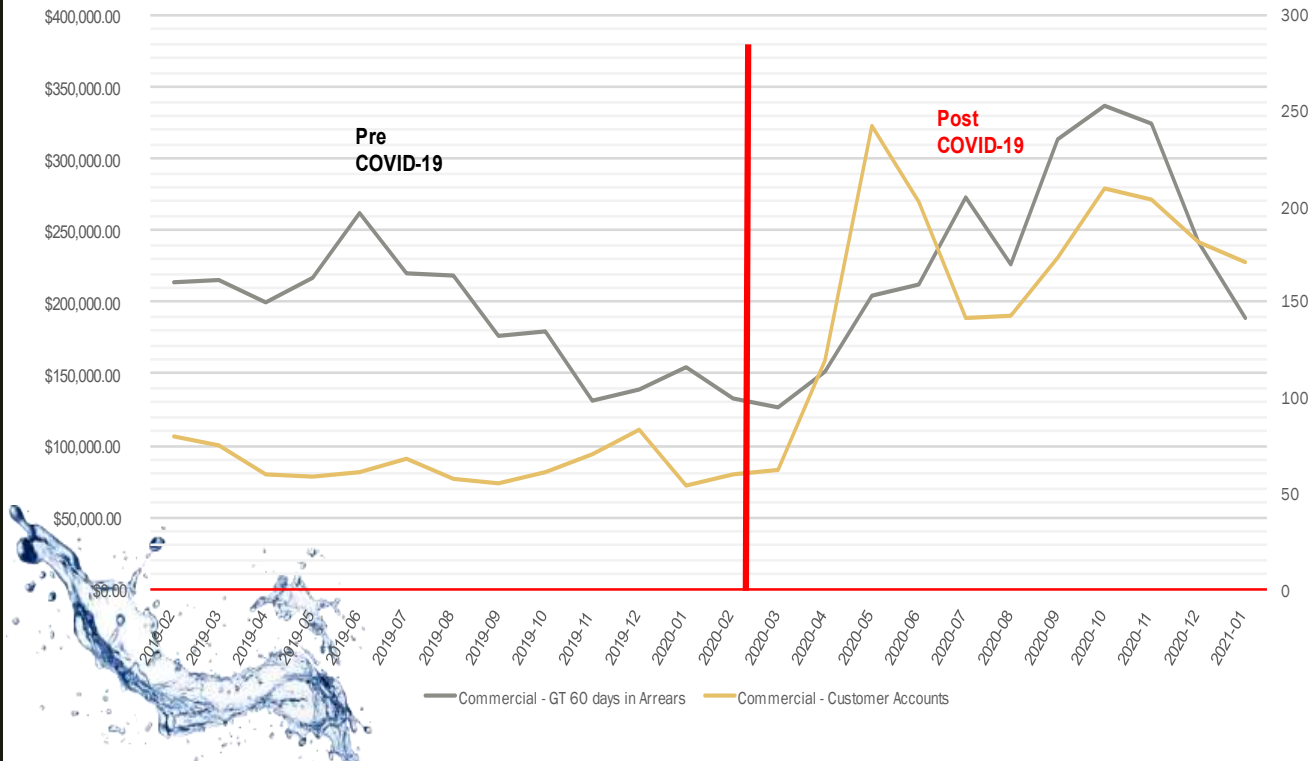


Active Residential Customer Accounts Receivable Due Greater than 60 Days





Active Commercial Customer Accounts Accounts Receivable Due Greater than 60 Days





Next Steps

- Determine date to restart disconnections.
- Continue outreach and encourage customers to apply for Rent and Utilities Assistance Program.
- Establish criteria and prioritization of accounts to disconnect that do not bring account current or enter into payment plan.



GWA Financial Overview

JANUARY 2021

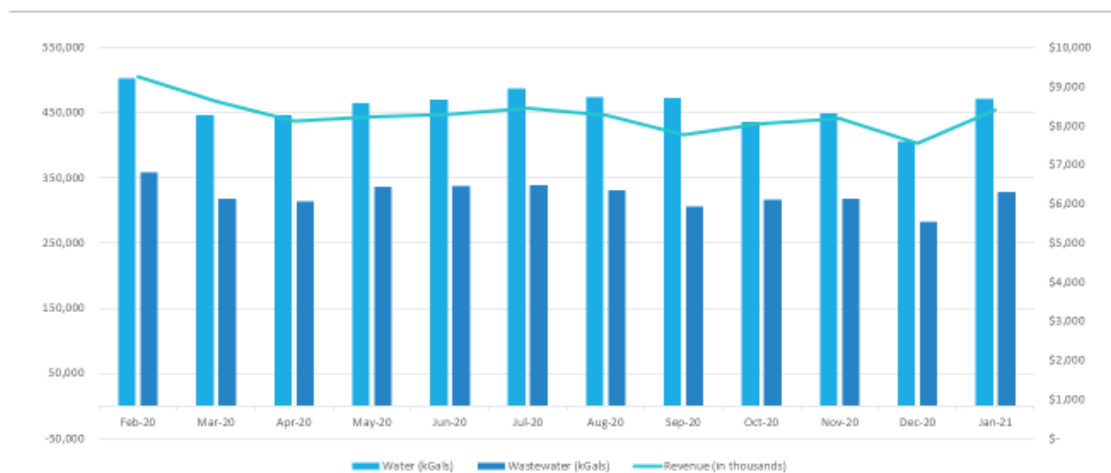


GWA Key Financial Indicators

Indicator	Target	December 2020	January 2021
DSC YTD			
• Per Section 6.12 of Indenture	1.25	1.32	1.30
• Per PUC / CCU	1.40	1.32	1.30
Days - Cash on Hand	120 days	277 days	259 days
Collection Ratio			
• Month to Date	99%	101%*	91%
• Year to Date	99%	96%*	95%
Days Billed	30 days	28 days	32 days
Account Receivable Days	30 days	50 days	50 days
Account Payable Days	45 days	33 days	32 days
Employee Count	400 FTE	373 FTE	373 FTE
Water Demand			
• Month to Date	478,754	405,540	471,523
• Year to Date	1,915,017	1,289,392	1,760,915
Wastewater Flow			
• Month to Date	356,472	283,087	328,313
• Year to Date	1,425,889	916,714	1,245,027
Water Customers	42,839	43,021	43,086
Wastewater Customers	29,805	29,988	29,765

*Updated from December reporting

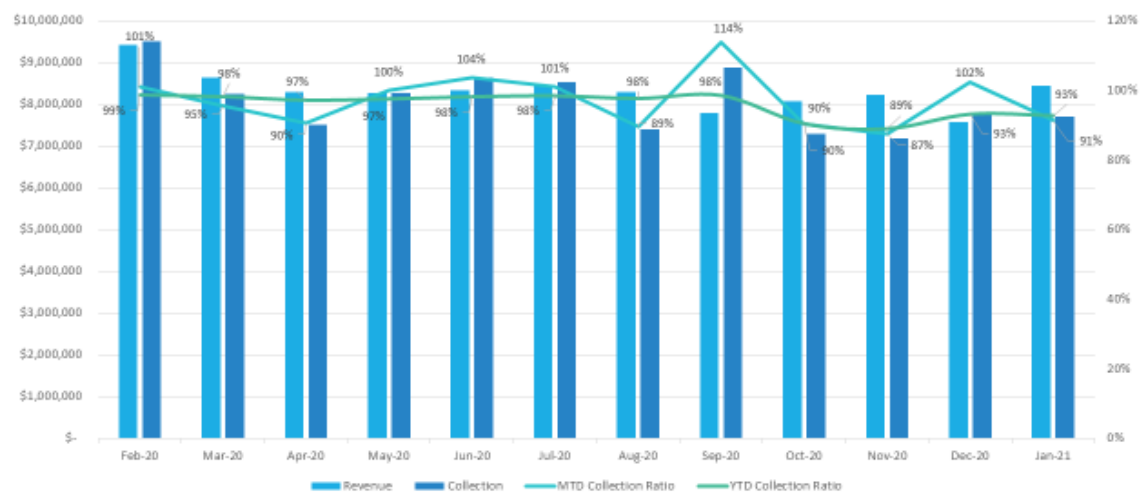
Overall Revenues and Demand



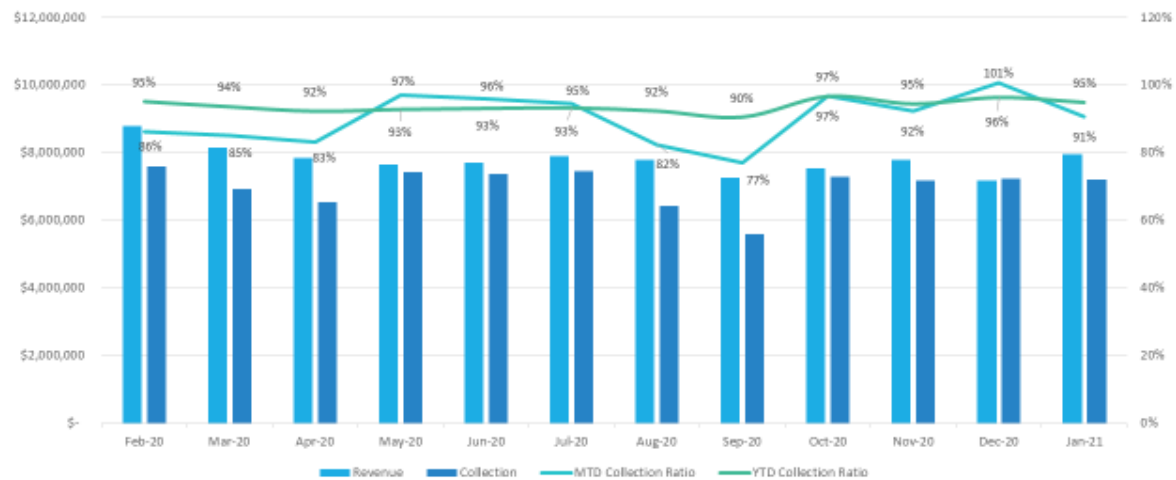
Revenues and Demand



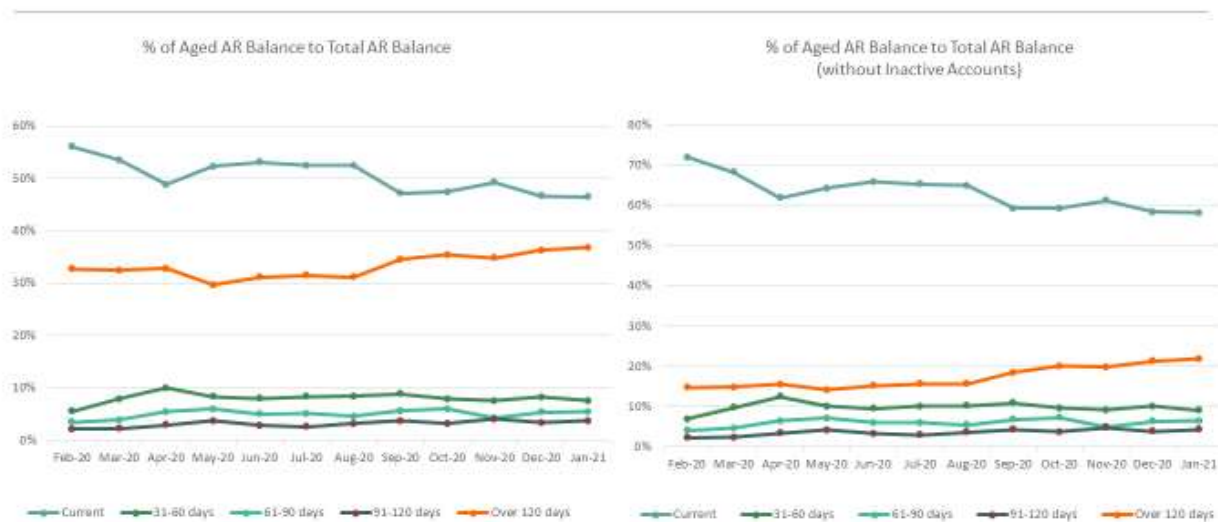
Overall Revenues and Collections



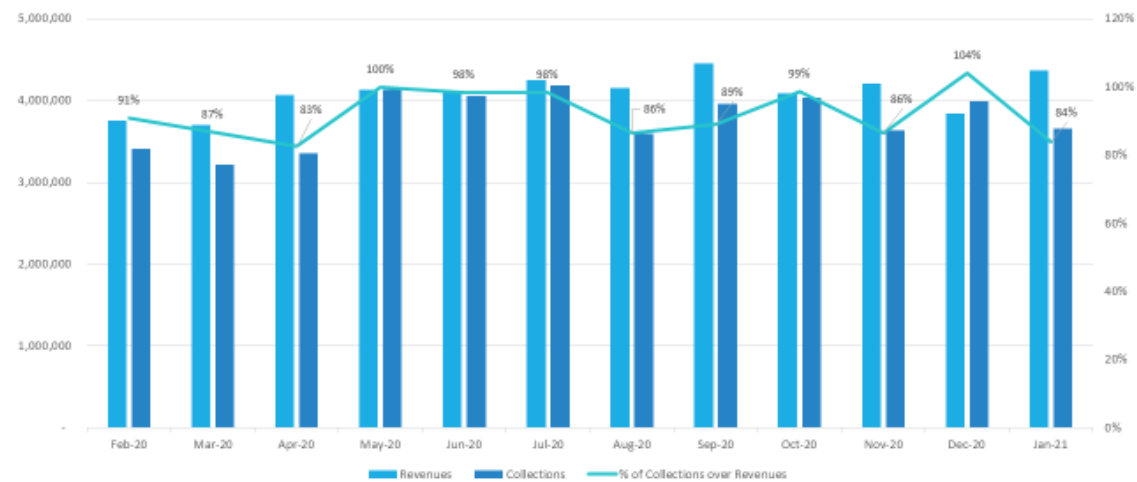
Revenues and Collections (without Navy)



Overall – AR Aging

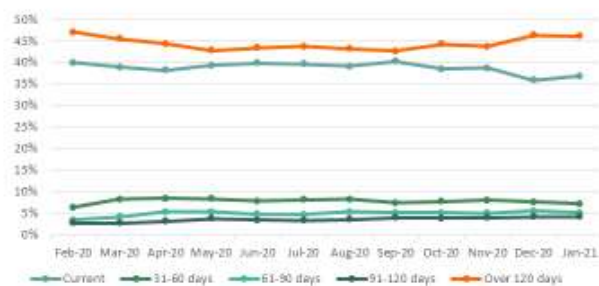


Residential Revenues and Collections



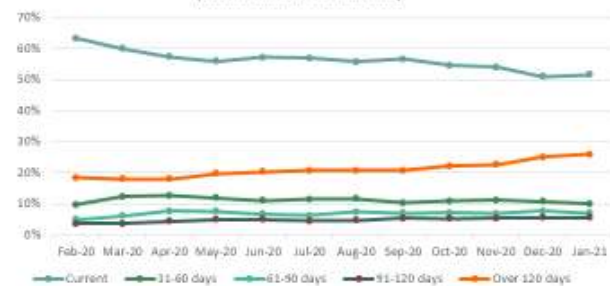
Residential - AR Aging

Residential - % of Aged AR Balance to Total AR Balance



Residential (in '000)

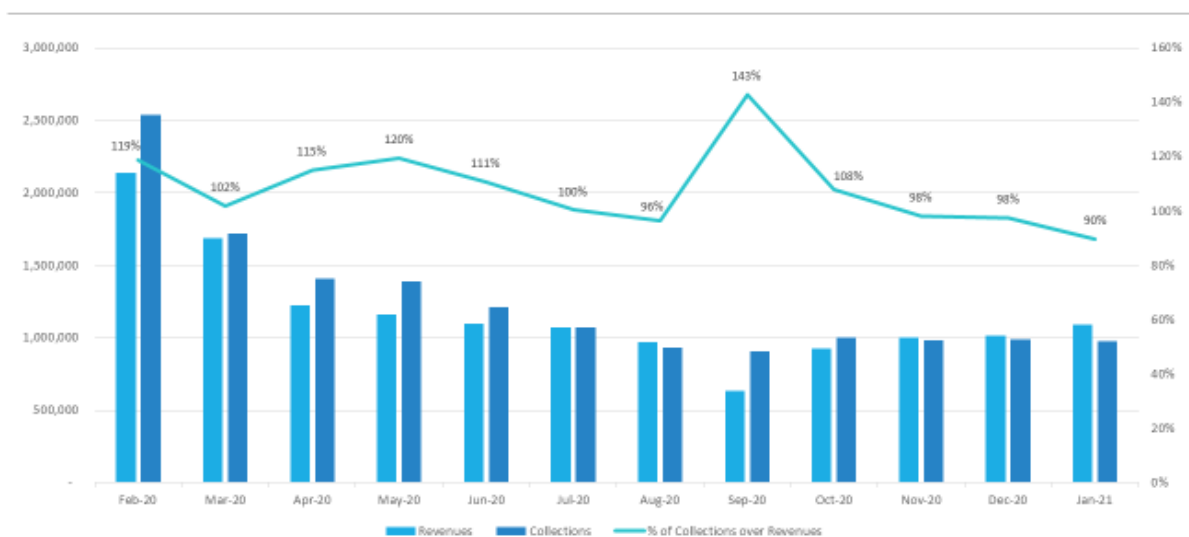
Month	Current Balance	31-60 days	61-90 days	91-120 days	Over 120 days	Total
Feb-20	4,445	717	400	315	5,235	11,112
Mar-20	4,370	982	500	352	5,334	11,719
Apr-20	4,738	1,065	680	404	5,510	12,396
May-20	4,555	982	632	445	4,953	11,566
Jun-20	4,592	917	582	415	4,998	11,483
Jul-20	4,538	942	546	390	5,000	11,416
Aug-20	4,631	987	644	438	5,104	11,804
Sep-20	4,952	928	844	504	5,249	12,277
Oct-20	4,693	952	640	480	5,387	12,142
Nov-20	4,923	1,037	653	522	5,569	12,703
Dec-20	4,475	969	707	528	5,770	12,445
Jan-21	4,800	958	682	560	6,016	13,016

Residential - % of Aged AR Balance to Total AR Balance
(Without Inactive Accounts)

Residential (in '000)

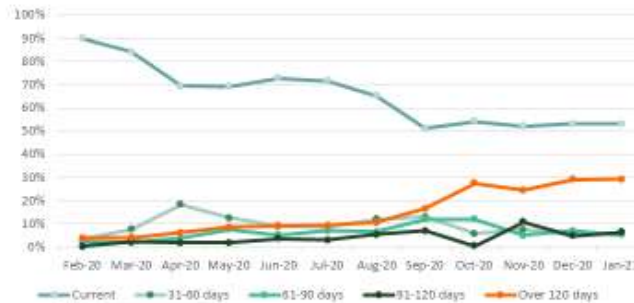
Month	Current Balance	31-60 days	61-90 days	91-120 days	Over 120 days	Total
Feb-20	4,407	678	346	253	1,278	6,962
Mar-20	4,548	939	461	277	1,358	7,583
Apr-20	4,715	1,039	636	363	1,472	8,225
May-20	4,511	961	608	403	1,588	8,072
Jun-20	4,556	874	535	388	1,616	7,968
Jul-20	4,498	903	497	360	1,639	7,897
Aug-20	4,606	956	606	388	1,710	8,266
Sep-20	4,919	896	808	461	1,793	8,877
Oct-20	4,647	922	698	446	1,885	8,507
Nov-20	4,857	1,000	616	484	2,037	8,964
Dec-20	4,448	952	665	486	2,189	8,718
Jan-21	4,766	925	646	513	2,400	9,250

Hotel Revenues and Collections



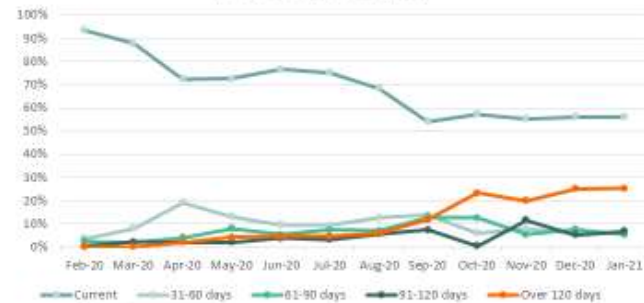
Hotel – AR Aging

Hotel - % of Aged AR Balance to Total AR Balance



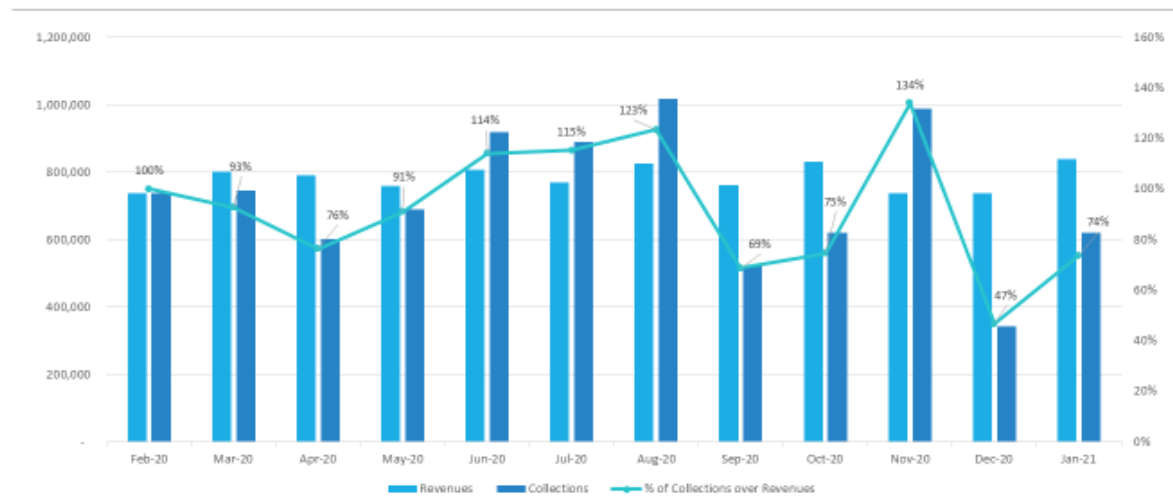
Month	Current Balance	31-60 days	61-90 days	91-120 days	Over 120 days	Total
Feb-20	2,847	113	75	9	124	3,168
Mar-20	2,642	240	59	68	127	3,136
Apr-20	2,080	547	117	57	184	2,985
May-20	1,867	541	206	52	232	2,698
Jun-20	1,878	235	134	94	237	2,578
Jul-20	1,835	228	180	77	240	2,562
Aug-20	1,693	313	172	141	276	2,596
Sep-20	1,175	298	276	162	582	2,292
Oct-20	1,201	128	265	11	612	2,217
Nov-20	1,141	161	111	238	535	2,187
Dec-20	1,200	127	161	111	659	2,259
Jan-21	1,263	138	124	154	694	2,373

Hotel - % of Aged AR Balance to Total AR Balance
(without Inactive Accounts)

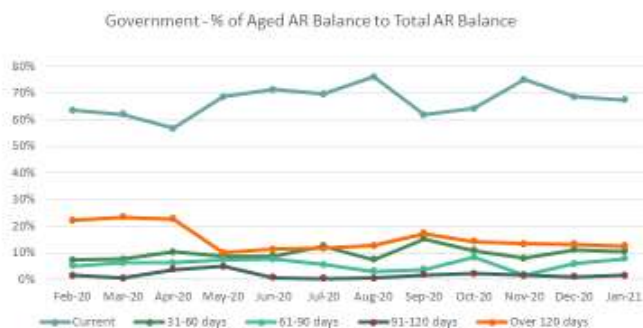


Month	Current Balance	31-60 days	61-90 days	91-120 days	Over 120 days	Total
Feb-20	2,847	113	75	9	-	3,044
Mar-20	2,642	240	59	68	3	3,012
Apr-20	2,080	547	117	57	59	2,840
May-20	1,867	541	206	52	107	2,574
Jun-20	1,878	235	134	94	113	2,454
Jul-20	1,835	228	180	77	116	2,457
Aug-20	1,693	313	172	141	152	2,472
Sep-20	1,175	298	276	162	257	2,168
Oct-20	1,201	128	265	11	488	2,093
Nov-20	1,141	161	111	238	421	2,083
Dec-20	1,200	127	161	111	535	2,135
Jan-21	1,263	138	124	154	570	2,249

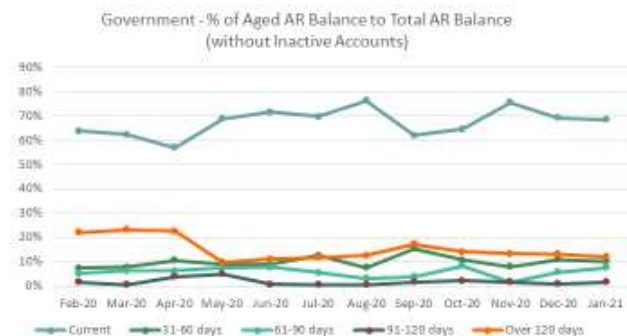
Government Revenues and Collections



Government - AR Aging

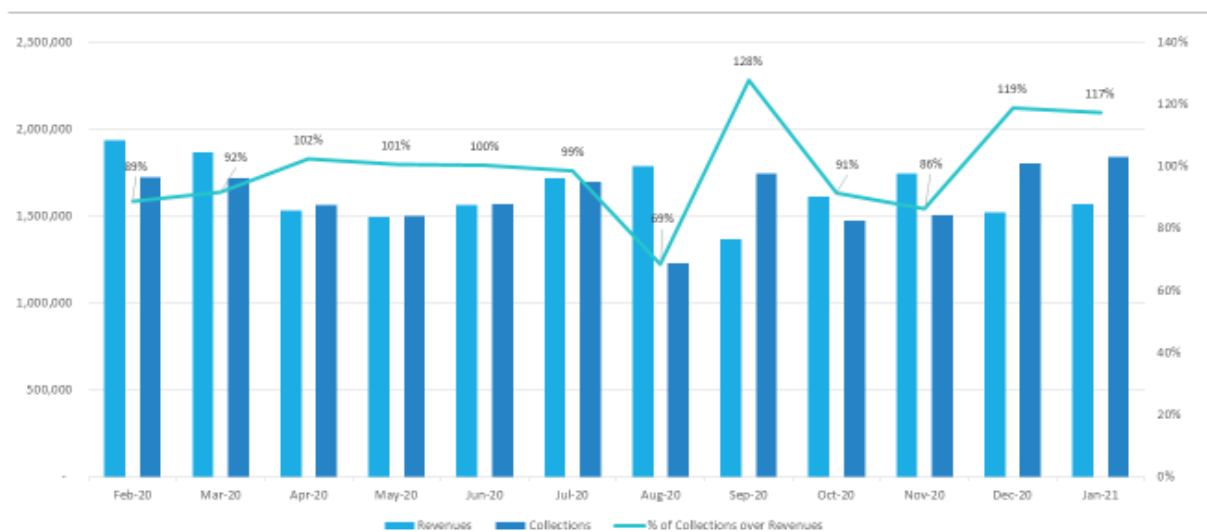


Month	Current Balance	31-60 days	61-90 days	91-120 days	Over 120 days	Total
Feb-20	2,582	296	211	65	903	4,057
Mar-20	2,439	301	247	21	913	3,911
Apr-20	2,291	422	253	153	919	4,038
May-20	2,818	361	311	201	411	4,102
Jun-20	2,623	325	284	25	418	3,674
Jul-20	2,475	448	198	15	419	3,554
Aug-20	2,553	251	106	17	429	3,357
Sep-20	1,525	377	94	41	429	2,466
Oct-20	2,076	350	267	73	463	3,229
Nov-20	2,424	261	57	49	434	3,226
Dec-20	2,450	400	213	36	472	3,571
Jan-21	2,415	375	282	59	451	3,582



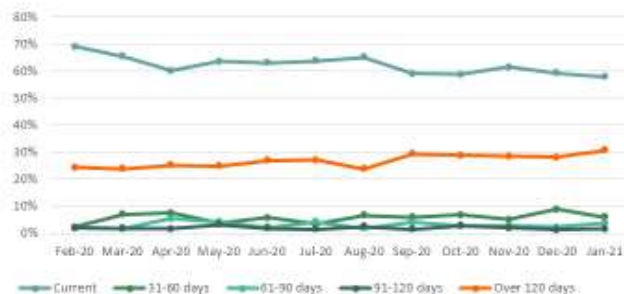
Month	Current Balance	31-60 days	61-90 days	91-120 days	Over 120 days	Total
Feb-20	2,592	296	211	64	885	4,057
Mar-20	2,439	301	247	21	903	3,911
Apr-20	2,301	422	253	153	910	4,038
May-20	2,827	361	311	201	403	4,102
Jun-20	2,630	325	284	25	410	3,674
Jul-20	2,482	448	198	15	411	3,554
Aug-20	2,560	251	106	17	422	3,357
Sep-20	1,525	377	94	41	422	2,459
Oct-20	2,088	346	267	73	456	3,229
Nov-20	2,413	253	53	49	427	3,195
Dec-20	2,450	389	205	32	465	3,541
Jan-21	2,531	375	282	59	443	3,691

Commercial Revenues and Collections



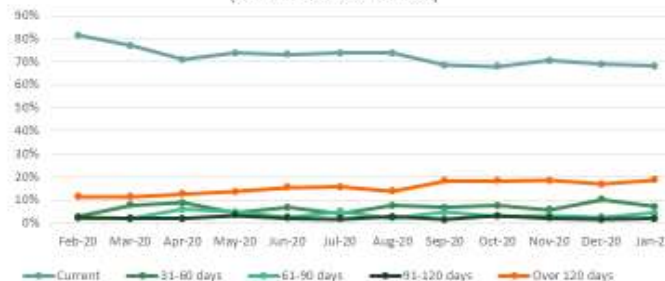
Commercial - AR Aging

Commercial - % of Aged AR Balance to Total AR Balance



Commercial (\$ in '000)

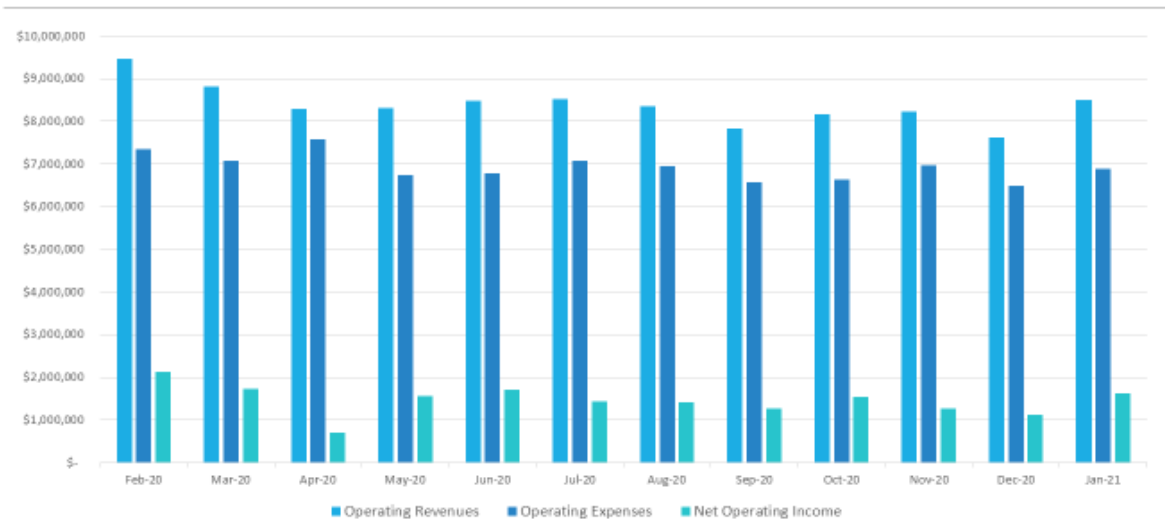
Month	Current Balance	31-60 days	61-90 days	91-120 days	Over 120 days	Total
Feb-20	2,349	83	70	66	829	2,397
Mar-20	2,308	248	62	66	840	3,522
Apr-20	2,099	262	193	66	878	3,438
May-20	2,174	134	165	112	863	3,448
Jun-20	2,144	199	78	84	513	3,537
Jul-20	2,173	117	166	89	927	3,463
Aug-20	2,573	264	75	97	944	3,953
Sep-20	2,006	204	141	48	997	3,397
Oct-20	2,084	240	97	101	1,019	3,541
Nov-20	2,316	193	108	75	1,071	3,769
Dec-20	2,016	201	79	48	958	3,402
Jan-21	1,816	189	118	52	962	3,138

Commercial - % of Aged AR Balance to Total AR Balance
(without Inactive Accounts)

Commercial (\$ in '000)

Month	Current Balance	31-60 days	61-90 days	91-120 days	Over 120 days	Total
Feb-20	2,222	80	63	60	227	2,948
Mar-20	2,206	230	61	60	329	2,996
Apr-20	2,098	239	178	55	371	2,999
May-20	2,172	123	162	96	401	2,946
Jun-20	2,141	197	76	61	460	2,936
Jul-20	2,170	115	144	49	465	2,942
Aug-20	2,569	262	74	98	482	3,485
Sep-20	2,001	200	136	47	526	2,910
Oct-20	2,080	234	52	98	558	3,061
Nov-20	2,313	190	101	71	608	3,280
Dec-20	2,010	206	76	64	496	2,959
Jan-21	1,812	188	114	50	498	2,662

Income Statement





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Corrective Action Plan (CAP) (Approved 10/21/2014) Quarterly/Annual Update Report

Guam Waterworks Authority Sanitary Survey Significant Deficiencies for the Water System

Prepared By: Paul Kemp, Vangie Lujan

Update: January 30, 2021

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items (2014):

Preface to the Corrective Action Plan

Reporting

Formal updates of the status of management of the Corrective Action Plan will be submitted on a regular basis to Region 9, USEPA.

The reports will be delivered on a quarterly basis beginning at the end of the next calendar-year quarter following the approval date of this Corrective Action Plan. Reporting will continue on a schedule by mutual agreement between GWA and Region 9 USEPA.

The vehicle to be used for this reporting will be an update of this document.

For Court Order updates/reporting, see the Court Order Submittals, e. g. Quarterly Reports.

1. Sources—Lack of routine maintenance (both corrective and preventative of sources).

- Potential bacteriological and/or chemical contamination of source
- Many wells found to have leaking pipes and valves

Recommendation:

- Lack of adequate site security—missing or damaged fencing and signs of vandalism (graffiti) on structures should be repaired or replaced.
- Begin routine and corrective maintenance of all wellhead appurtenances and well facilities—meters, valves, pumps, air relief valves, piping pressure gauges, etc.

Remove unnecessary items (old lines, gauges, meters, etc.)

Action Plan:

GWA is implementing new O&M SOPs, programs and systems on an on-going basis.

Proposed Action Item Schedule	Task Description
As of 06/25/2013.	55 new SOP's Implemented (assisted by CDM, EPA Grant)
Drafts and planed	CDM continues work, particularly on Asset Management
Average one a month by 06/30/2014	Complete new SOP's and implement
Semi-annually beginning 01/2014	Training on SOP's Repeats Continuously, Managed for GWA by Ann Borja Supported by CDM Smith funded by EPA SRF.
Updated (Reporting per Preface)	Started by CDM Smith-Continued by GWA SOP Committee CMMS is still being Updated..



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Prepared By: Paul Kemp, Vangie Lujan

Update: January 30, 2021

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items (2014):

2. Sources—No Wellhead Protection Plan	
Many wells are located in close proximity to potential sources of fecal and other sources of contamination, and no wellhead protection plan in place for GWA wells.	
<ul style="list-style-type: none"> Potential bacteriological and/or chemical contamination of source Wells located near potential sources of contamination 	
Recommendation:	
<ul style="list-style-type: none"> Possible sewage source upstream (Talofofo Falls Park) - Should notify owner/operators of need to notify Uguim WTP if there is a spill or discharge Recreational activities on the Uguim River at the intake site which currently allow people in close proximity to the intake structure should be evaluated. 	
Action Plan:	
GWA will build from the existing 1992 Guam Law, Ch. 7 section 7130 of the Water Resource Development and Operating Regulations (GEPA) entitled "Well Head Protection for Public Water Supply Well". BC to develop a plan to improve monitoring of the wellhead. Plan to be in accordance with existing Guam EPA Wellhead Protection.	
Proposed Action Item Schedule	Task Description
05/30/2013	First Draft for GWA review
06/03/2014	First Draft submitted to USEPA
06/29/2015	Final Submitted to USEPA; EA Engineering Science and Technology, Inc..
06/29/2015	Complete

3. Sources Uguim— Diesel fuel storage tank containment located near intake for Uguim Water Treatment Plant (WTP) is undersized;	
Diesel fuel storage tank containment located near intake for Uguim Water Treatment Plant (WTP) is undersized; spill could contaminate the Uguim River. Potential chemical contamination of source	
<ul style="list-style-type: none"> Diesel fuel storage tank containment area at the intake was visibly undersized and was designed to discharge to the ground where it could flow downhill to the Uguim River 	
Comment: This item was incorrectly evaluated.	
Tank is dual walled construction. Containment is adequate.	
Proposed Action Item Schedule	Task Description
	Provide documentation verifying dual wall construction.
05/08/2013	Verification sent to EPA – Complete

4. Sources Well— Some wells have cracks and other openings in the well pads, well casings and improperly sealed sanitary seals.	
Some wells have cracks and other openings in the well pads, well casings and improperly sealed sanitary seals. These are direct openings for contamination to enter wells. Potential bacteriological or chemical contamination of source.	
<ul style="list-style-type: none"> Cracks in well pads and well casings and improperly sealed sanitary seals Lack of well pads at some locations 	
Action Plan:	
Initiate repair. Document completion of repair. Engage consultant for independent confirmation of repair work and production of report.	
Proposed Action Item Schedule	Task Description
12/1/2013	Initiate repair work
2/1/2013	Engage consultant Brown and Caldwell
4/30/2013	Complete repair work
5/5/2013	Draft report to GWA
6/6/2013	Report sent to USEPA – Completed
	New Sanitary Survey is under way with GEPA



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Update: January 30, 2021

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items (2014):

5. Sources Well— Missing screens on well casing vents. Potential contamination of source. • Missing screens on well casing vents	
Action Plan: Initiate repair. Document completion of repair. Engage consultant for independent confirmation of repair work and production of report.	
Proposed Action Item Schedule	Task Description
12/1/2013	Initiate repair work
2/1/2013	Engage consultant Brown and Caldwell
4/30/2013	Complete repair work
5/5/2013	Draft report to GWA
6/6/2013	Report to USEPA
5/13/2013	Report sent to USEPA – Completed New Sanitary Survey is under way with GEPA

6. Sources Well— Wells have bypass lines that were routed into the ground and off-site without an air gap. Wells have bypass lines that were routed into the ground and off-site without an air gap. Potential contamination of source. Many wells found to have bypass lines that were routed into the ground and off-site without an air gap	
Action Plan: Initiate repair. Document completion of repair. Engage consultant for independent confirmation of repair work and production of report.	
Proposed Action Item Schedule	Task Description
12/1/2013	Initiate repair work
2/1/2013	Engage consultant Brown and Caldwell
4/30/2013	Complete repair work
5/5/2013	Draft report to GWA
6/6/2013	Report to USEPA
5/23/2013	Report sent to USEPA – Completed New Sanitary Survey is under way with GEPA

7. Sources Spring--Lack of operating flow meter at spring source makes operation (including chlorine dosing) problematic. Difficulty in ensuring adequate chlorination/disinfection Recommendation: Remove heavy vegetative growth around the clear well structure. Implement routine and corrective maintenance at all spring appurtenances—meters, valves, pumps, piping, pressure gauges, etc.	
Action Plan: Initiate repair. Document completion of repair.	
Proposed Action Item Schedule	Task Description
12/1/2013	Initiate repair work
4/30/2013	Complete repair work
6/6/2013	Report to USEPA
5/23/2013	Report sent to USEPA - Complete

8. Sources Spring-- Santa Rita Spring Box (Clear Well) – – Gaps between corrugated metal roof and clear well walls allow entry by animals, birds and reptiles. Allow bacteriological contamination to enter source.	
Action Plan: Initiate repair. Document completion of repair.	
Proposed Action Item Schedule	Task Description
05/08/2013	Reported to USEPA - Complete



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Update: January 30, 2021

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items (2014):

9. <u>Treatment-- Lack of operations and maintenance (Ugum, Santa Rita Spring)</u>	
Recommendation:	
<ul style="list-style-type: none"> Implement routine and corrective maintenance at all spring appurtenances—meters, valves, pumps, piping, pressure gauges, etc. 	
Ugum training on O&M will be regular refresher classes on annual basis.	
Action Plan:	
Proposed Action Item Schedule	Task Description
Santa Rita Spring (Ground Water)	
05/08/2013	Santa Rita Spring O&M training was completed and has been sent to USEPA.
05/08/2013	O&M is now under Production Section.
05/31/2014 etc.	Santa Rita Spring O&M training will have annual refreshers.
Ugum Surface Water Treatment Plant	
11/19-23/2012	Latest Training by Siemens/Smithbridge
07/23/2013	Additional Specialized training on coagulation optimization for membranes
08/01/2013	Training certification sent to USEPA
07/01/2014 and thereafter.	O&M training will have annual refreshers.
Court Order project r	See Court Order Section II C. 26 Ugum SOP's - Complete

10. <u>Treatment-- Lack of operating turbidimeter at Santa Rita Spring source.</u>	
Action Plan:	
Initiate repair. Document completion of repair.	
Proposed Action Item Schedule	Task Description
05/08/2013	Verification submitted to USEPA - Complete

11. <u>Treatment-- Plant operators do not regularly conduct jar tests and do not optimize precursor removal at Ugum WTP.</u>	
Action Plan:	
Prepare Bid or Change Order for TOC. Prepare documentation of training. Provide copies of regular reporting.	
Proposed Action Item Schedule	Task Description
5/15/2013	Prepare change order for installation of TOC and appurtenances. Smithbridge
08/12/2013	Completed installation of on-site TOC analyzer.
08/15/2013	Completed training of operators on site TOC analyzer.
07/23/2013	Additional Specialized training on coagulation optimization for membranes
08/01/2013	Training certification sent to USEPA – Complete

12. <u>Treatment-- Inadequate turbidity monitoring and reporting at Ugum</u>	
Action Plan:	
Address re-programming SCADA. Provide copies of daily submittals sent to GEPA and monthly submittals, and send example reports to USEPA as documentation.	
Proposed Action Item Schedule	Task Description
06/06/2013	Send documentation of conformance to USEPA
05/30/2013	Send documentation of conformance to USEPA - Complete



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Guam Waterworks Authority Sanitary Survey Significant Deficiencies for the Water System

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Update: January 30, 2021

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items (2014):

13. Treatment-- At least one well (D-5) did not have a chlorination system in place	
Action Plan:	
D-5 well is not a point of entry into the potable distribution system issue.	
Proposed Action Item Schedule	Task Description
6/6/2013	Report to USEPA
05/31/2013	Report sent to USEPA - Complete

14. Treatment Well-- At least one well, the well log indicated chlorine gas had run out in the past (April 29, 2012)	
Inadequate chlorination/disinfection could result in exposure to bacteriological contamination.	
Action Plan:	
GWA to provide the log sheets. This finding is a result of an incorrect assessment	
Proposed Action Item Schedule	Task Description
6/6/2013	GWA to send USEPA the log sheet – interpretation was incorrect.
05/31/2013	Sent to USEPA - Complete

15. Water Storage-- Severe internal/external rust and corrosion including roofs, roof vents, walls, base and other welds, anchors allows contaminants to enter tanks.	
Recommendation:	
GWA should properly maintain facilities and grounds (remove overgrown vegetation, take away garbage, repair security breaches, etc.	
Action Plan:	
This is a Court Order project. Work performed will be in accordance with the 2011 court order.	
Proposed Action Item Schedule	Task Description
In Progress – Court Order.	See CO §II(C) Paragraph 29, Quarterly and Annual Reports-In Progress

16. Water Storage-- Bolts, many completely rusted through, compromise structural stability of tanks.	
Recommendation: Potential for tank failure	
Action Plan:	
This is a Court Order project. Work performed will be in accordance with the 2011 court order Paragraph 29.	
Proposed Action Item Schedule	Task Description
Court Order project.	See CO Section §II(C) Paragraph 29, Quarterly and Annual Reports

17. Water Storage-- Inadequate Site Security (holes in fences, missing gates) and unlocked hatches allow easy access to tanks (as demonstrated by vandalism at many tanks). Potential for access by public and consequent contamination.	
Action Plan:	
This is a Court Order project. Work performed will be in accordance with the 2011 court order Paragraph 29.	
GWA will correct on tanks undergoing major repairs.	
Proposed Action Item Schedule	Task Description
Court Order project.	See CO Section §II(C) Paragraph 29, Quarterly and Annual Reports Routine maintenance is continuous.

18. Water Storage-- Leaking tanks.	
Recommendation: Could allow contamination to enter.	
Action Plan:	
This is a Court Ordered project. Work performed will be in accordance with the 2011 court order Paragraph 29.	
Proposed Action Item Schedule	Task Description
Court Order project.	See CO Section §II(C) Paragraph 29, Quarterly and Annual Reports



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Update: January 30, 2021

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items (2014):

19. Water Storage-- Flooded, uncovered and unsecured valve vaults Could allow contamination to enter.	
<u>Action Plan:</u> This is a Court Ordered project. Work performed will be in accordance with the 2011 court order Paragraph 29. GWA will correct on tanks undergoing major repairs.	
Proposed Action Item Schedule	Task Description
Court Order project.	Report sent to EPA: - Complete

20. Water Storage-- No screen or flapper on the storage tanks' overflows. Potential for access by public and consequent contamination.	
<u>Action Plan:</u> This is a Court Order project. Work performed will be in accordance with the 2011 court order Paragraph 29. GWA will correct on tanks undergoing major repairs.	
Proposed Action Item Schedule	Task Description
Court Order project.	Report sent to EPA: - Complete

21. Water Storage-- Ladders not locked, allow easy potential access by vandals.	
<u>Action Plan:</u> This is a Court Order project. Work performed will be in accordance with the 2011 court order Paragraph 29. GWA will correct on tanks undergoing major repairs.	
Proposed Action Item Schedule	Task Description
Court Order project.	Report sent to EPA: Complete

22. Water Storage-- Ladders severely corroded or no cage will prevent adequate maintenance	
<u>Action Plan:</u> This is a Court Order project. Work performed will be in accordance with the 2011 court order Paragraph 29.	
Proposed Action Item Schedule	Task Description
Court Order project.	Report sent to EPA: Complete

23. Distribution System-- Inadequate cross connection control program exists within GWA. Potential for backflow/backpressure and contamination.	
<u>Action Plan:</u> Engage consultant to develop how GWA can plan for backflow prevention program. Create report documenting procedures for implementing a program.	
Proposed Action Item Schedule	Task Description
02/01/2013	Engage consultant Brown and Caldwell
05/05/2013	Submit draft plan for GWA review
06/05/2013	Submitted draft plan to USEPA
NTP issued.	Draft Detailed Cross-Connection Control Plan by PMO Work Order.
Pending CCU approval	GWA recruiting positions to man and execute this project.
Included in Plan	Detailed Cross-Connection Control Plan Technical Memo Completed, supplemental update is in progress prior to submittal for CCU approval.
Program Pending Formal Adoption	Draft plan Completed 02/16/2018. Implementation in Progress



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Corrective Action Plan (CAP) (Approved 10/21/2014) Quarterly/Annual Update Report

Guam Waterworks Authority Sanitary Survey Significant Deficiencies for the Water System

Prepared By: Paul Kemp, Vangie Lujan

Update: January 30, 2021

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items (2014):

24. Distribution System-- Undersized water lines impact water pressure and water quality and contribute to potential cross-connections. Potential for backflow/backpressure and contamination.	
<u>Action Plan:</u> Engage consultant to develop how GWA can plan for small diameter pipeline replacement program. Create report documenting procedures for implementing a program.	
Proposed Action Item Schedule	Task Description
02/01/2013	Engage consultant Brown and Caldwell
05/05/2013	Submit draft plan for GWA review
06/05/2013	Submitted draft plan to USEPA
10/01/2013	Approved Plan/CIP for line replacement.
12/31/2013	Submit Approved Plan/CIP for line replacement to PUC.
04/30/2014	Approved of Plan/CIP for line replacement by PUC.
07/01/2014	Begin line replacement program for small diameter pipelines.
01/01/2024	Complete small diameter pipeline replacement.
Updates (Reporting per Preface)	See GWA WRMP 2017 Update at < http://guamwaterworks.org/wp-content/uploads/2020/02/GWRMPU_Executive_Summary_FINAL_201808.pdf >.

25. Pumps-- No pump controls at many of the booster pump stations; lack of maintenance. Leaking seals in pumps and valves results in intermittent service and supply, lower reliability and decreased pressure.	
<u>Recommendation:</u> Implement routine and corrective maintenance at all spring appurtenances—meters, valves, pumps, piping, pressure gauges, etc.	
<u>Action Plan:</u> Initiate repair. Engage consultant for independent analysis and condition assessment of booster pumping stations. Consultant to develop schedule and cost estimates for implementing upgrades of booster pumping stations. Consultant to prepare a report for rehabilitation program.	
Proposed Action Item Schedule	Task Description
12/01/2012	Initiate immediate repairs
02/01/2013	Engage consultant Brown and Caldwell
02/26/2013	5-year CIP approved by CCU
04/30/2013	Complete immediate repairs
05/05/2013	Submit draft report to GWA for review
09/06/2013	Submitted draft report to USEPA for approval
03/30/2014	Final plan for booster station repairs.
Updates (Reporting per Preface)	See GWA WRMP 2017 Update at < http://guamwaterworks.org/wp-content/uploads/2020/02/GWRMPU_Executive_Summary_FINAL_201808.pdf >.



Gloria B. Nelson Public Service Building, Suite 200 688 Rt. 15. Mangilao, GU 96913-6203

Corrective Action Plan (CAP) (Approved 10/21/2014) Quarterly/Annual Update Report

Guam Waterworks Authority Sanitary Survey Significant Deficiencies for the Water System

Prepared By: Paul Kemp, Vangie Lujan

Update: January 30, 2021

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items (2014):

26. Pumps-- Lack of adequate backup pumps. Flooding of booster pump stations.	
Results in intermittent service and supply, lower reliability and decreased pressure	
Action Plan: Initiate repair. Engage consultant for independent analysis and condition assessment of booster pumping stations. Consultant to develop schedule and cost estimates for implementing upgrades of booster pumping stations. Consultant to prepare a report for rehabilitation program.	
Proposed Action Item Schedule	Task Description
12/01/2012	Initiate immediate repairs
02/01/2013	Engage consultant Brown and Caldwell
02/26/2013	5-year CIP approved by CCU
04/30/2013	Complete immediate repairs
05/05/2013	Submit draft report to GWA for review
09/06/2013	Submitted draft report to USEPA for approval
03/30/2014	Final plan for booster station repairs.
Updates (Reporting per Preface)	See GWA WRMP 2017 Update at < http://guamwaterworks.org/wp-content/uploads/2020/02/GWRMPU_Executive_Summary_FINAL_201808.pdf >.

27. Pumps-- No controls on well pumps or booster pumps.	
Results in intermittent service and supply, lower reliability and decreased pressure.	
Action Plan: Initiate repair. Engage consultant for independent analysis and condition assessment of booster pumping stations. Consultant to develop schedule and cost estimates for implementing upgrades of booster pumping stations. Consultant to prepare a report for rehabilitation program.	
Proposed Action Item Schedule	Task Description
12/01/2012	Initiate immediate repairs
02/01/2013	Engage consultant Brown and Caldwell
02/26/2013	5-year CIP approved by CCU
04/30/2013	Complete immediate repairs
05/05/2013	Submit draft report to GWA for review
09/06/2013	Submitted draft report to USEPA for approval
03/30/2014	Final plan for booster station repairs.
Updates (Reporting per Preface)	See GWA WRMP 2017 Update at < http://guamwaterworks.org/wp-content/uploads/2020/02/GWRMPU_Executive_Summary_FINAL_201808.pdf >.

28. Pumps-- Leaking pump seals, valves, lines, and highly rusted piping.	
Results in intermittent service and supply, lower reliability and decreased pressure.	
Action Plan: Initiate repair. Engage consultant for independent analysis and condition assessment of booster pumping stations. Consultant to develop schedule and cost estimates for implementing upgrades of booster pumping stations. Consultant to prepare a report for rehabilitation program.	
Proposed Action Item Schedule	Task Description
12/01/2012	Initiate immediate repairs
02/01/2013	Engage consultant Brown and Caldwell
02/26/2013	5-year CIP approved by CCU
04/30/2013	Complete immediate repairs
05/05/2013	Submit draft report to GWA for review
09/06/2013	Submitted draft report to USEPA for approval
Maintenance work in progress	Begin program for booster station repairs, copy to USEPA
Updates (Reporting per Preface)	See GWA WRMP 2017 Update at < http://guamwaterworks.org/wp-content/uploads/2020/02/GWRMPU_Executive_Summary_FINAL_201808.pdf >.



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Guam Waterworks Authority Sanitary Survey Significant Deficiencies for the Water System

Prepared By: Paul Kemp, Vangie Lujan

Update: January 30, 2021

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items (2014):

29. Water Quality-- Inadequate monitoring and reporting – Uguim WTP and Santa Rita Spring (turbidity and chlorine residual) exceedances (violations) may be going undetected and unreported.

Recommendation:

Continue to improve utility-wide communications to address previous lack of complete communication between departments.

Action Plan: GWA has made this KPI and it is managed via weekly reports

Proposed Action Item Schedule	Task Description
06/06/2013	GWA to submit weekly report documentation to USEPA.
05/30/2013	GWA submitted documentation to USEPA. Complete

30. SDWA Compliance-- Lead and Copper Rule monitoring overdue.

Action Plan:

GWA has implemented the required LCR monitoring and will proceed to complete and continue as required by the rule without waiting for GEPA to approve the schedule and process. If GEPA ever decides to participate, GWA will make additions that are requested.

Proposed Action Item Schedule	Task Description
12/04/2012	Routine Procedure started.
06/14/2013	Round 1 completed with all sample results below both Pb and Cu action levels.
12/31/2013	Completed second Round of Monitoring
01/31/2014.	Lab results verify GWA is in compliance. - Complete

31. SDWA Compliance-- Unaddressed Stage 2 Disinfection/Disinfectant Byproducts rule (DBP) Rule MCL Violations, required public notification.

Action Plan:

Continue to report in CCR and add quarterly mailings to Central (GU0000003) and or Southern (GU0000001) System customers. GWA to await schedule for Navy water compliance schedule from Fena Reservoir for Central (GU0000003).

Proposed Action Item Schedule	Task Description
05/20/2013	Southern (GU0000001) System is now compliant with Stage 2 DBP Rule
05/20/2013	Central (GU0000003) System is compliant with Stage 2 DBP Rule in all areas except one small part of Agat. Mailings to all Central Customers will continue until clear.
06/06/2013	Initiated quarterly mailings to affected customers. [Central (GU0000003)]
Consecutive System Management	GWA continues to reduce purchases of water from the Fena SWTP which has made the difference in the Central (GU0000003) System.
Navy Water is now in compliance	DBP exceedance Central (GU0000003) System has ended with changes in the Navy Fena Surface Water Treatment Plant's operations, achieving compliance with the Stage 2 DBP Rule.
Quarterly mailings are discontinued.	Complete

32. Administration-- No formal, comprehensive training program for operators and other personnel.

Can result in inappropriate or inadequate operation and negative impacts on water quality.

Action Plan:

GWA to complete an annual Workforce Development Report

Proposed Action Item Schedule	Task Description
01/16/2014	First Annual Workforce Development (Training) Report.
Regular Training Scheduled	Adapted dependent on subject matter. Assisted by PMO.
Updates (Reporting per Preface)	See Comprehensive management Plan 08/27/2013
Provided by GWA and AWWA	Training programs are managed by GW's Personnel Development specialist in conjunction with AWWA-HIWS



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Update: January 30, 2021

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items (2014):

33. Administration-- Hydraulic model is neither complete nor accurate enough to make operational or design decisions. Results in poor design and operational decisions impacting water quality.	
Action Plan: This is a Court Ordered project. Work performed will be in accordance with the 2011 court order Paragraph 29(a)(2).	
Proposed Action Item Schedule	Task Description
05/03/2013 Court Order project	Submitted Hydraulic Model report to USEPA under CO 29(a)(2). Complete

34. Administration-- No preventative maintenance programs for most operational areas. Many system components in varying levels of disrepair or failure put system at risk for contamination.	
Action Plan: GWA is working with USEPA and CDM to improve Asset Management	
Proposed Action Item Schedule	Task Description
In Progress	GWA/CDM-Smith Asset Management program
Continuously updated	GWA Asset Management program – Lucity CMMS being populated

35. Administration-- Data are collected, but do not have the capacity to analyze the information to assist with operational decisions. Lack of understanding and use of operational data can result in poor system operations and consequent risk for contamination or failure.	
Action Plan: GWA will improve data collection and assessment function – SOP's and Training are in planning stages.	
Proposed Action Item Schedule	Task Description
2013	New SOP's and Training
2013 through 2018	Five year development plan for staff capacity for data retrieval and analysis.
Evolved, data collection upgraded.	Required staff positions created
Updated per Preface	Creation of Management analyst positions is completed.

36. Administration-- Lack of Standard Operating Procedures ("SOPs").	
Action Plan: GWA will conduct SOP training	
Proposed Action Item Schedule	Task Description
As of 06/25/2013.	55 new SOP's Implemented (assisted by CDM, EPA Grant)
Drafts and planed	CDM continues work, particularly on Asset Management
Average one a month my 06/30/2014	Complete new SOP's and implement
09/06/2013	Reported status to USEPA
Semi-annual - Continuous	Training on SOPs is regular continuous.
Updates (Reporting per Preface)	Started by CDM Smith-Continued by GWA SOP Committee

37. Operator Compliance-- No proper operator certification for system type. Inadequately trained operators do not perform process control adequately, which impacts finished water quality.	
Action Plan: GWA disputes the described deficiency. GWA has always been in compliance.	
Proposed Action Item Schedule	Task Description
06/06/2013	Submit Certification information USEPA.
05/24/2013	Certification information sent to USEPA - Complete



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Guam Waterworks Authority Sanitary Survey Significant Deficiencies for the Water System

Prepared By: Paul Kemp, Vangie Lujan

Update: January 30, 2021

NEIC Work Product No. VP0989E01 GWA Sanitary Survey Significant Deficiency Items (2014):

38. Operator Compliance-- Plant operators do not regularly conduct jar tests.	
Inadequately trained operators do not perform process control adequately, which impacts finished water quality.	
Proposed Action Item Schedule	Task Description
5/15/2013	Prepare change order for installation of TOC and appurtenances. Smithbridge
08/12/2013	Completed installation of on site TOC analyzer.
08/15/2013	Completed training of operators on site TOC analyzer.
07/23/2013	Additional Specialized training on coagulation optimization for membranes
08/01/2013	Training certification sent to USEPA - Complete
06/01/2017	TOC unit has become inoperative – efforts to restore it do not seem to be effective.
05/20/2021	Replacing the old TOC analyzer with one with local service support/service. Procurement is still in progress.

39. Operator Compliance-- Plant operators and engineering staff did not understand the correlation between ineffective coagulant dosing.	
Inadequately trained operators do not perform process control adequately, which impacts finished water quality.	
Proposed Action Item Schedule	Task Description
5/15/2013	Prepare change order for installation of TOC and appurtenances. Smithbridge
08/12/2013	Completed installation of on site TOC analyzer.
08/15/2013	Completed training of operators on site TOC analyzer.
07/23/2013	Additional Specialized training on coagulation optimization for membranes
08/01/2013	Training certification sent to USEPA - Complete
06/01/2017	TOC unit has become inoperative – efforts to restore it do not seem to be effective.
05/20/2021	Replacing the old TOC analyzer with one with local service support/service. Procurement is still in progress.

40. Operator Compliance-- No level 4 Operator is actually located on site at the Ugum WTP, as required.	
Violation of Guam Operator Certification requirement.	
<u>Action Plan:</u> Level 4 operators are not required at Ugum, Current status requires only Level 3 operators. GWA has always been in compliance.	
Proposed Action Item Schedule	Task Description
06/06/2013	Submit Certification information USEPA.
05/24/2013	Certification information sent to USEPA - Complete

Status Summary: as of May 20, 2019

Corrective Action Plan Legend	Fill Color	No. of Items
Information and/or future steps	No Fill	
Completed	Green	35
On schedule	Yellow	5
Continuous (Permanently Active)	Yellow-Green	7

GWA Utility Services Division
Monthly Status Report
Month ending JAN 2021

FY2021		WEEK ENDING: 01/02/21	WEEK ENDING: 01/09/21	WEEK ENDING: 01/16/21	WEEK ENDING: 01/23/21	WEEK ENDING: 01/30/21	JAN 2021 MONTHLY TOTAL	WEEKLY AVERAGE JAN 2021	PREVIOUS MONTH	
UTILITY SERVICES DIVISION ACTIVITIES									WEEKLY AVERAGE DEC 2020	DEC 2020 MONTHLY TOTAL
Collections Activities:										
I.	Number of accounts cut for nonpayment:	0	0	0	0	0	0	0	0	0
II.	Number of accounts restored for nonpayment:	0	1	2	1	0	4	1	0	2
III.	Number of No water reports responded to:	0	1	1	0	4	6	1	1	5
IV.	Number of Secure/Unsecure valve reports responded to:	2	11	8	3	3	27	5	5	24
V.	Number of Verify reads responded to:	4	0	0	0	0	4	1	4	22
VI.	Number of new pay plans negotiated for active accounts:	52	69	86	43	48	298	60	45	225
VII.	Number of active pay plans negotiated and ongoing:	344	413	320	448	328		371	343	
VIII.	Number of inactive accounts with a payment arrangement:	5	6	6	6	6		6	5	
IX.	Number of broken payment plans:	9	57	36	46	29	177	35	31	157
Customer Service Activities (lobby visits):										
A. GBN Public Service Building – Fadjan										
i.	Total Customers Assisted:	107	144	118	119	172	660	132	113	564
ii.	Total Abandoned Requests:	1	2	1	1	2	7	1	2	9
iii.	Average Wait Time:	7 minutes	5 minutes	5 minutes	6 minutes	5 minutes		5.6 minutes	5.4 minutes	
iv.	Average Service Time:	14 minutes	12 minutes	13 minutes	13 minutes	12 minutes		12.8 minutes	12.6 minutes	
v.	Purpose of lobby visit:									
1.	Apply for water:	37	45	46	50	53	231	46	39	193
2.	Restore water cut for non payment:	0	0	0	0	0	0	0	0	0
3.	Terminate Water:	11	11	4	12	9	47	9	11	54
4.	Copy of Bill:	13	14	10	12	21	70	14	13	65
5.	Billing Dispute:	22	36	30	26	62	176	35	24	121
6.	Billing Dispute follow up:	0	0	0	0	0	0	0	0	1
7.	General Questions & Other:	18	38	25	14	15	110	22	23	115
8.	Report a water leak:	0	1	1	0	2	4	1	0	1
9.	Report water theft:	0	0	0	0	0	0	0	0	0
10.	Payment Arrangement:	7	11	5	6	6	35	7	4	18
B. Julale Satellite Office – Hagatna										
i.	Total Customers Assisted:	103	119	116	103	134	575	115	116	580
ii.	Total Abandoned Requests:	2	10	3	1	7	23	5	3	16
iii.	Average Wait Time:	3 minutes	4 minutes	3 minutes	4 minutes	5 minutes		3.8 minutes	4 minutes	
iv.	Average Service Time:	8 minutes	9 minutes	11 minutes	10 minutes	10 minutes		9.6 minutes	9.6 minutes	
v.	Purpose of lobby visit:									
1.	Apply for water:	26	49	39	21	52	187	37	47	236
2.	Restore water cut for non payment:	0	0	0	0	0	0	0	0	1
3.	Terminate Water:	7	12	9	11	13	52	10	12	62
4.	Copy of Bill:	13	16	15	9	18	71	14	17	87
5.	Billing Dispute:	38	33	36	29	29	165	33	27	135
6.	Billing Dispute follow up:	0	0	0	0	0	0	0	0	0
7.	General Questions & Other:	19	20	14	19	18	90	18	21	106
8.	Report a water leak:	0	0	0	0	0	0	0	0	0
9.	Report water theft:	0	0	0	0	0	0	0	0	0
10.	Payment Arrangement:	5	1	5	5	8	24	5	4	21
C. Upper Tumon Satellite Office – Upper Tumon										
i.	Total Customers Assisted:	116	118	141	126	171	672	134	125	623
ii.	Total Abandoned Requests:	4	6	6	6	3	25	5	3	14
iii.	Average Wait Time:	1 minutes	2 minutes	1 minutes	2 minutes	2 minutes		1.6 minutes	1.6 minutes	
iv.	Average Service Time:	14 minutes	17 minutes	12 minutes	13 minutes	14 minutes		14 minutes	14 minutes	
v.	Purpose of lobby visit:									
1.	Apply for water:	44	42	39	38	59	222	44	46	229
2.	Restore water cut for non payment:	0	0	0	0	0	0	0	1	5
3.	Terminate Water:	14	19	16	13	20	82	16	17	84
4.	Copy of Bill:	2	9	14	9	7	41	8	6	32
5.	Billing Dispute:	35	21	36	36	57	185	37	30	150
6.	Billing Dispute follow up:	0	0	0	0	0	0	0	0	1
7.	General Questions & Other:	21	36	27	28	25	137	27	22	111
8.	Report a water leak:	0	0	0	0	0	0	0	0	0
9.	Report water theft:	0	0	0	0	0	0	0	0	0
10.	Payment Arrangement:	3	1	9	5	4	22	4	5	24

GWA Work Session - February 16, 2021 - DIVISION REPORTS

GWA Utility Services Division
Monthly Status Report
Month ending JAN 2021

FY2021 UTILITY SERVICES DIVISION ACTIVITIES	WEEK ENDING: 01/02/21	WEEK ENDING: 01/09/21	WEEK ENDING: 01/16/21	WEEK ENDING: 01/23/21	WEEK ENDING: 01/30/21	JAN 2021 MONTHLY TOTAL	WEEKLY AVERAGE JAN 2021	PREVIOUS MONTH	
								WEEKLY AVERAGE DEC 2020	DEC 2020 MONTHLY TOTAL
Customer Service Activities (Electronic):									
i. Emails Received:									
1. customers@guamwaterworks.org:	79	106	85	86	126	482	96	118	590
Request type (email):									
a. Apply for water:	18	27	16	19	25	105	21	28	139
b. Terminate Water:	4	8	4	6	8	30	6	8	38
c. Copy of Bill:	1	1	2	1	1	6	1	2	8
d. Billing Dispute & follow up:	4	5	7	6	10	32	6	11	54
e. General Questions & Other:	41	48	42	36	48	215	43	53	264
f. Report a water leak:	3	6	2	3	6	20	4	2	12
g. Report water theft:	0	0	0	0	0	0	0	0	0
h. Online services inquiry:	8	11	12	15	28	74	15	15	75
2. gwaservesme@guamwaterworks.org (realtors/prop	0	0	0	0	0	0	0	0	0
ii. Emails Replied (both):	92	84	66	71	84	397	79	84	420
iii. Online Portal:									
Request type (online portal):									
a. Start Service:	2	2	0	4	2	10	2	3	13
b. Stop Service:	0	0	1	0	0	1	0	0	2
c. Payment Plan:	0	0	0	0	2	2	0	1	3
d. Customer Information Updates:	1	0	0	0	0	1	0	0	2
e. Service Investigations:	0	0	0	0	0	0	0	0	0
f. Account Inquiries:	1	1	0	2	2	6	1	1	4
g. Technical Support:	1	0	0	0	1	2	0	0	1
h. Outages & Emergencies:	0	0	0	0	0	0	0	0	0
Call Center Activities:									
i. Calls Received:	1055	1338	1116	939	1104	5552	1110	1116	5582
ii. Calls Immediately Answered:	428	714	654	483	633	2912	582	596	2981
iii. Calls Abandoned:	50	54	46	42	43	235	47	50	248
iv. Calls Handled by Voice mail:	576	569	415	414	428	2402	480	470	2351
v. Average duration of call:	6 minutes	3 minutes	5 minutes	5 minutes	4 minutes		4.6 minutes	5 minutes	
vi. Breakdown by request type:									
1. Apply/Terminate info:	32	43	34	38	39	186	37	41	205
2. Automated Telephone Call:	0	0	0	0	0	0	0	0	0
3. Balance Inquiry:	27	65	47	40	47	226	45	38	190
4. Call Back:	23	17	9	14	9	72	14	16	78
5. Dispatch:	21	17	29	14	15	96	19	23	115
6. Dispute:	0	2	0	2	0	4	1	0	2
7. Follow-up:	12	30	24	35	47	148	30	28	142
8. General Questions & Other:	70	109	85	105	122	491	98	93	465
9. Route Calls to GWA Staff:	125	188	230	176	169	888	178	173	865
10. No Water:	24	41	11	5	23	104	21	23	116
11. Online/Phone App Help:	17	34	18	23	23	115	23	29	143
12. Pay by Phone:	77	142	96	89	116	520	104	131	654
13. Pay Plan:	27	36	44	24	27	158	32	25	126
14. Restore Non-payment:	0	0	0	0	0	0	0	0	0
15. Secure/Unsecure Valve:	6	18	13	1	12	50	10	11	53
16. Voice Mail:	91	84	43	84	70	372	74	69	347
17. Water leak:	10	23	17	11	14	75	15	12	62
Bill Dispute & Resolution Activities:									
i. Dispute Resolution:									
1. Number of disputed accounts resolved:	3	17	32	20	16	88	18	10	50
2. Number of disputed accounts under review:	1653	1654	1641	1641	1607		1639	1646	
Data Entry of Completed Field work in CIS:									
i. Document Control:									
1. Number of field activities posted:	329	294	433	253	322	1631	326	328	1641
2. Number of field activities pending:	212	240	304	219	249	1224	245	294	1469
Field Response Activities:									
I. Number of field activities assigned:	171	168	192	143	202	876	175	208	1040
II. Number of field activities completed:	148	175	236	177	220	956	191	238	1188
III. Number of field activities pending field action:	0	1	0	0	1	2	0	2	10

GWA Utility Services Division
Monthly Status Report
Month ending JAN 2021

FY2021 UTILITY SERVICES DIVISION ACTIVITIES	WEEK ENDING:	WEEK ENDING:	WEEK ENDING:	WEEK ENDING:	WEEK ENDING:	JAN 2021 MONTHLY TOTAL	WEEKLY AVERAGE JAN 2021	PREVIOUS MONTH	
	01/02/21	01/09/21	01/16/21	01/23/21	01/30/21			WEEKLY AVERAGE DEC 2020	DEC 2020 MONTHLY TOTAL
Meter Reading Activities:									
I. Number of meters read:									
A. Electronically Read Meters:	2721	7679	14625	11842	5754	42621	8524	8512	42558
B. Manually Read Meters:	14	20	41	25	27	127	25	23	115
i. Unread meters (Meters scheduled but not read):	3	12	11	12	9	47	9	6	29
ii. Number of data logs received:	11	20	23	24	34	112	22	23	115
iii. Number of data logs retrieved:	0	29	23	17	51	120	24	25	124
iv. Number of data logs pending field action:	1	0	0	0	0	1	0	0	1
v. Communication Errors/Reprogramming requests:	0	3	0	2	3	8	2	3	16
vi. Number of estimated readings (for the week):	36	124	230	415	270	1075	215	149	743
vii. Reasons for Estimations:									
1. Cant locate meter:	5	1	1	1	2	10	2	1	4
2. Temporary Obstruction:	0	0	1	0	0	1	0	0	1
3. Vicious Dog:	0	0	1	0	0	1	0	0	0
4. Flooded meter:	0	0	0	0	0	0	0	0	0
5. Corrective action to database requested:	1	4	3	7	2	17	3	3	13
6. Possible changed out meter:	3	8	5	10	1	27	5	2	11
7. Communication/Programming error (code 92's):	0	0	0	0	0	0	0	0	0
8. Other:	0	0	0	0	0	0	0	2	12
a. Leaks detected on customer's private line:	451	1180	2461	1839	698	6629	1326	1376	6882
b. Reverse Flow Detected:	17	88	201	370	246	922	184	122	612
c. No Usage Detected:	98	268	379	403	293	1441	288	291	1455
d. Tamper Code:	7	8	5	14	6	40	8	10	49
C. Electronic Read Percentage:	99.49%	99.74%	99.72%	99.79%	99.53%		99.7%	99.7%	
Illegal Connection & Unauthorized Use of Water Activities:									
I. Number of Inactive Still Consuming Reports rec'd & Investigated:	0	0	0	0	0	0	0	0	0
II. Number of Illegal Connection reports rec'd & Investigated:	0	1	1	0	1	3	1	1	6



Engineering Monthly Report February 2021

Prepared By:

**Brett E. Railey, P.E.
Chief Engineer**

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A. Summary Table of 2010, 2013, 2016 and 2020 Bonds

Potable Water

CIP #	CIP Description	2016 Bond Allotment	% encumbered	% available	2020 Bond Allotment	% encumbered	% available
PW 05-01	Ground Water Disinfection	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 05-03	Santa Rita Springs Booster Pump Rehab Phase II	\$ -	N/A	N/A	\$ -	N/A	N/A
PW-05-05	"A Series Well Transmission Line	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 05-06	Water Booster Pump Station	\$ -	N/A	N/A	\$ 700,000.00	0.00%	100.00%
PW 05-07	Meter Replacement Program	\$ 1,400,000.00	100.00%	0.00%	\$ -	N/A	N/A
PW 05-08	Barrigada Tank Repair/Replacement	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 05-09	Leak Detection	\$ 100,000.00	0.00%	100.00%	\$ 400,000.00	0.00%	100.00%
PW 05-10	Potable Water System Planning	\$ 876,294.00	99.99%	0.01%	\$ 400,000.00	0.00%	100.00%
PW 05-11	Implement Ground Water Rule	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 05-12	Brigade II (Ugum Lift) BPS Upgrade	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 05-13	Deep Well Rehabilitation	\$ 250,000.00	44.01%	55.99%	\$ 350,000.00	0.00%	100.00%
PW 05-14	New Deep Wells at Down Hard	\$ 1,190,000.00	0.00%	100.00%	\$ 500,000.00	0.00%	100.00%
PW 05-15	Rehabilitation of Asan Springs	\$ -	N/A	N/A	\$ 550,000.00	0.00%	100.00%
PW 05-16	Master Meters	\$ 2,151,539.00	90.70%	9.30%	\$ -	N/A	N/A
PW 09-01	Ugum Water Treatment Plant Intake	\$ -	N/A	N/A	\$ 600,000.00	0.00%	100.00%
PW 09-02	Water Wells	\$ 2,500,000.00	6.80%	93.20%	\$ 500,000.00	0.00%	100.00%
PW 09-03	Water Distribution System	\$ -	N/A	N/A	\$ 2,250,000.00	0.00%	100.00%
PW 09-04	Pressure Zone Realignment	\$ 1,141,000.00	100.00%	0.00%	\$ -	N/A	N/A
PW 09-06	Central Water Distribution System 2005	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 09-08	Mechanical/Electrical Equipment	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 09-09	Water Reservoir Internal/External	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 09-10	Water Reservoir Internal/External	\$ 800,000.00	100.00%	0.00%	\$ -	N/A	N/A
PW 09-11	Water System Reservoirs 2005 Improvements	\$ 58,830,170.00	91.80%	8.20%	\$ 25,900,000.00	0.00%	100.00%
PW 11-01	Distribution System Upgrades	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 11-02	Ugum Water Treatment Plant Reservoir	\$ -	N/A	N/A	\$ 7,500,000.00	0.00%	100.00%
PW 12-01	Water Audit Program & Water Loss Control Plan	\$ 550,000.00	90.75%	9.25%	\$ -	N/A	N/A
PW 12-02	Production Plan / Reduce Navy Purchases	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 12-03	Hydraulic Assessment of Tanks	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 12-04	Agana Heights & Chaot Tanks	\$ 1,220,000.00	100.00%	0.00%	\$ -	N/A	N/A
PW 12-05	Tank Major Repair Yigo #1, Mangilao #2, Astumbo#1	\$ 1,822,133.00	100.00%	0.00%	\$ -	N/A	N/A
PW 12-06	Tank Replacement Piti & Hyundai	\$ 7,300,000.00	100.00%	0.00%	\$ 6,500,000.00	0.00%	100.00%
PW 12-07	Assessment of Malojoj Elevated & Yigo Elevated	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 12-08	Public Water System Asset Inventory/ Condition Assessment	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 12-09	Public Water System GIS & Mapping	\$ -	N/A	N/A	\$ -	N/A	N/A
PW 14-01	Fire Hydrant Replacement Program	\$ 1,200,000.00	99.70%	0.30%	\$ -	N/A	N/A
MP-PW-Pipe-01	Astumbo Zone Piping				\$ -	N/A	N/A
MP-PW-Pipe-02	Route 1 Astumbo Zone Piping				\$ -	N/A	N/A
MP-PW-Pipe-03	Harmon Cliffline Piping to Route 1				\$ -	N/A	N/A
MP-PW-Pipe-04	Hyundai Well Piping				\$ 500,000.00	0.00%	100.00%
MP-PW-Pipe-05	Kaiser Zone Looping				\$ 300,000.00	0.00%	100.00%
MP-PW-Pipe-06	Mangilao Pressure Zone Realignment				\$ 300,000.00	0.00%	100.00%
MP-PW-Pipe-07	Mataguac BPS Suction Piping				\$ 500,000.00	0.00%	100.00%
MP-PW-Pipe-08	Nimitz Lower BPS Piping				\$ -	N/A	N/A
MP-PW-Pipe-09	Yigo, Santa Rosa Zone Realignment				\$ -	N/A	N/A
MP-PW-Pipe-10	Miscellaneous Piping Projects				\$ 200,000.00	0.00%	100.00%
MP-PW-Pipe-11	Miscellaneous Piping Connections				\$ 200,000.00	0.00%	100.00%
MP-PW-Pipe-12	Rehabilitation and Replacement Program				\$ 2,000,000.00	0.00%	100.00%
MP-PW-Pipe-13	2-Inch Pipe Replacement Program				\$ 3,330,000.00	0.00%	100.00%
MP-PW-Pipe-14	Asbestos Cement Pipe Replacement Program				\$ -	N/A	N/A
MP-PW-Pipe-15	PRV Rehab and Replacement				\$ 2,050,000.00	0.00%	100.00%
MP-PW-Pipe-16	Valve Exercise, Repair, and Replacement Program				\$ 250,000.00	0.00%	100.00%
MP-PW-Pipe-17	Cross Island Highway Piping				\$ 100,000.00	0.00%	100.00%
MP-PW-Tank-22	Existing Tank Inspections				\$ 150,000.00	0.00%	100.00%
MP-PW-Tank-23	Recurring Tank Inspections				\$ 400,000.00	0.00%	100.00%
MP-PW-BPS-01	Rehabilitate and Replace BPSs				\$ 409,000.00	0.00%	100.00%
MP-PW-BPS-02	Nimitz Hill Upper BPS				\$ 48,000.00	0.00%	100.00%
MP-PW-BPS-03	Route 15 BPS				\$ -	N/A	N/A
MP-PW-SWTP-01	Ugum SWTP River Intake Cleaning Project				\$ 380,000.00	0.00%	100.00%
MP-PW-SWTP-02	Ugum SWTP Intake Modifications				\$ 1,174,000.00	0.00%	100.00%
MP-PW-SWTP-03	Ugum SWTP Reliability Improvements				\$ 1,150,000.00	0.00%	100.00%
MP-PW-SWTP-04	Ugum SWTP 7-Year Improvement Project				\$ -	N/A	N/A
MP-PW-Well-01	Well Rehabilitation Program				\$ 3,600,000.00	0.00%	100.00%
MP-PW-Well-02	Well Equipment Overhaul Program				\$ -	N/A	N/A
MP-PW-Well-03	Capacity Enhancement – Well Exploration Program				\$ 500,000.00	0.00%	100.00%
MP-PW-Well-04	Capacity Enhancement – Well Development and Construction				\$ -	N/A	N/A
MP-PW-Well-05	Wellhead Protection Program				\$ 300,000.00	0.00%	100.00%
MP-PW-Well-06	Well Repair Program				\$ 1,200,000.00	0.00%	100.00%
MP-PW-Misc-01	South Guam Water Supply Study				\$ 100,000.00	0.00%	100.00%
MP-PW-Misc-02	Master Meter Implementation and Ongoing Meter Replacement				\$ 750,000.00	0.00%	100.00%
MP-PW-Misc-03	Hydrant Condition Assessment and Maintenance				\$ -	N/A	N/A
MP-PW-Misc-04	OneGuam Program				\$ 100,000.00	0.00%	100.00%
MP-PW-Misc-05	Leak Detection Assistance				\$ 150,000.00	0.00%	100.00%
DoD-3	Rehabilitation and New NGLA Monitoring Wells				\$ -	N/A	N/A
		\$ 81,331,136.00			\$ 66,291,000.00		

Wastewater

CIP #	CIP Description	2016 Bond Allotment	% encumbered	% available	2020 Bond Allotment	% encumbered	% available
WW 05-04	Wastewater System Planning	\$ 312,983.00	100.00%	0.00%	\$ 150,000.00	56.32%	43.68%
WW 05-05	Wastewater Vehicles	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 05-07	NDWWTP - Chlorine Tanks	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 09-01	Lift station upgrades	\$ 1,714,755.00	69.89%	30.11%	\$ 1,050,000.00	0.00%	100.00%
WW 09-06	Wastewater Collection System Repl/ Rehabilitation	\$ 1,055,478.00	56.98%	43.02%	\$ 1,400,000.00	0.00%	100.00%
WW 09-08	Facilities Plan/Design for Baza Gardens WWTP	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 09-10	Facilities Plan/Design for Agat-Santa Rita WWTP	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 11-03	Baza Gardens STP Replacement	\$ 25,048,522.50	90.16%	9.84%	\$ -	N/A	N/A
WW 11-04	Facilities Plan/Design for Umatac-Merizo WWTP	\$ 252,105.00	100.00%	0.00%	\$ -	N/A	N/A
WW 11-08	Agat-Santa Rita STP Replacement	\$ 2,226,659.06	89.93%	10.07%	\$ -	N/A	N/A
WW 12-01	Northern District WWTP Primary Treatment Upgrade	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 12-02	Biosolids Management Plan	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 12-03	Agana WWTP Interim Measures	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 12-04	I&I SSES Southern	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 12-05	I&I SSES Central	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 12-06	I&I SSES Northern	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 12-07	Umatac Merizo Replacement	\$ 20,952,871.63	99.89%	0.11%	\$ -	N/A	N/A
WW 12-08	Wastewater System GIS & Mapping	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 12-09	Wastewater Facility Back Up Power	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 12-10	Wastewater System Asset Inventory	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 17-01	Wastewater Sewer System Expansion	\$ -	N/A	N/A	\$ -	N/A	N/A
WW 17-02	Northern District WWTP Secondary Treatment Upgrade	\$ -	N/A	N/A	\$ -	N/A	N/A
MP-WW-Pipe-01	Gravity Pipe Rehabilitation/Replacement Program				\$ 1,970,000.00	0.00%	100.00%
MP-WW-Pipe-02	Barrigada Pump Station Pipe Rehabilitation/Replacement				\$ -	N/A	N/A
MP-WW-Pipe-03	Route 1 Pitti Pipe Rehabilitation/Replacement				\$ 940,000.00	0.00%	100.00%
MP-WW-Pipe-04	Southern Link Pump Station Pipe Rehabilitation/Replacement				\$ 657,000.00	0.00%	100.00%
MP-WW-Pipe-05	Agana Heights Pipe Replacement				\$ -	N/A	N/A
MP-WW-Pipe-06	Northern District Route 1 Capacity Replacement - Phase 1				\$ -	N/A	N/A
MP-WW-Pipe-07	Northern District Route 1 Capacity Replacement - Phase 2				\$ -	N/A	N/A
MP-WW-Pipe-08	Northern District Route 1 Capacity Replacement - Phase 3				\$ -	N/A	N/A
MP-WW-Pipe-09	North Dededo Capacity Replacement - Phase 1				\$ -	N/A	N/A
MP-WW-Pipe-10	North Dededo Capacity Replacement - Phase 2				\$ -	N/A	N/A
MP-WW-Pipe-11	Route 16 Capacity Replacement				\$ -	N/A	N/A
MP-WW-Pipe-12	Barrigada Capacity Replacement				\$ -	N/A	N/A
MP-WW-Pipe-13	Mangilao Capacity Replacement				\$ -	N/A	N/A
MP-WW-Pipe-14	Dededo Capacity Replacement				\$ -	N/A	N/A
MP-WW-Pipe-16	Yigo Capacity Replacement				\$ -	N/A	N/A
MP-WW-Pipe-17	Mamajanao Capacity Replacement				\$ 814,000.00	0.00%	100.00%
MP-WW-Pipe-18	Agat-Santa Rita Capacity Replacement - Phase 1				\$ -	N/A	N/A
MP-WW-Pipe-19	Agat-Santa Rita Capacity Replacement - Phase 2				\$ -	N/A	N/A
MP-WW-Pipe-20	Agat-Santa Rita Capacity Replacement - Phase 3				\$ -	N/A	N/A
MP-WW-Pipe-21	Baza Gardens Capacity Replacement - Phase 1				\$ -	N/A	N/A
MP-WW-Pipe-22	Baza Gardens Capacity Replacement - Phase 2				\$ -	N/A	N/A
MP-WW-Pipe-23	Baza Gardens Capacity Replacement - Phase 3				\$ -	N/A	N/A
MP-WW-Pipe-24	Umatac-Merizo Capacity Replacement				\$ -	N/A	N/A
MP-WW-Pipe-25	Piping Near Bayside Lift Station				\$ -	N/A	N/A
MP-WW-Pipe-26	Finite Drive Rehabilitation - Agat				\$ 813,000.00	0.00%	100.00%
MP-WW-Pipe-27	Septic/Cesspool System Reduction Program				\$ 350,000.00	0.00%	100.00%
MP-WW-MH-01	Manhole Rehabilitation Program				\$ 350,000.00	0.00%	100.00%
MP-WW-FM-01	Force Main Rehabilitation/Replacement Program				\$ 100,000.00	0.00%	100.00%
MP-WW-FM-02	Replace Yigo Lift Station Force Main				\$ 200,000.00	0.00%	100.00%
MP-WW-FM-03	Route 1 Asan Force Main Rehabilitation/Replacement				\$ 2,124,000.00	0.00%	100.00%
MP-WW-FM-04	Hagåtña WWTP Force Main Rehabilitation/Replacement				\$ 6,600,000.00	0.00%	100.00%
MP-WW-Pump-01	Lift Station Rehabilitation/Replacement Program				\$ 8,320,000.00	0.00%	100.00%
MP-WW-Pump-02	Tumon Basin - Fujita Lift Station Analysis				\$ 9,600,000.00	0.00%	100.00%
MP-WW-Pump-03	Replacement of Former Navy Pump Station (Donut Hole)				\$ 1,301,000.00	0.00%	100.00%
MP-WW-WWTP-01	Hagåtña WWTP Primary Treatment Repair/Rehabilitation Program				\$ -	N/A	N/A
MP-WW-WWTP-02	Hagåtña WWTP Secondary Treatment Upgrade				\$ -	N/A	N/A
MP-WW-WWTP-03	Inarajan WWTP Repair/Rehabilitation Program				\$ -	N/A	N/A
MP-WW-WWTP-04	Pago Socio WWTP Pump Station Conversion				\$ -	N/A	N/A
MP-WW-WWTP-05	Umatac-Merizo WWTP Repair/Rehabilitation Program				\$ -	N/A	N/A
MP-WW-WWTP-06	Agat-Santa Rita WWTP Repair/Rehabilitation Program				\$ -	N/A	N/A
MP-WW-WWTP-07	Baza Gardens Cross Island Pipeline - Preliminary Treatment Equipment Repair and Rehabilitation Program				\$ -	N/A	N/A
MP-WW-WWTP-08	Northern District WWTP Completion				\$ 7,500,000.00	0.00%	100.00%
MP-WW-WWTP-09	Ocean Outfall Inspection Program				\$ 100,000.00	0.00%	100.00%
MP-WW-Misc-01A	Update Wastewater Collection System Model (Major Update)				\$ -	N/A	N/A
MP-WW-Misc-01B	Update Wastewater Collection System Model (Continued)				\$ 50,000.00	0.00%	100.00%
MP-WW-Misc-02	VI and SSES Assessments				\$ 50,000.00	0.00%	100.00%
MP-WW-Misc-03	Miscellaneous Wastewater Improvements				\$ 500,000.00	0.00%	100.00%
MP-WW-Misc-04	Fats, Oils, and Grease Study				\$ 50,000.00	0.00%	100.00%
DoD-01	NDWWTP Secondary Treatment Capacity 12MGD				\$ -	N/A	N/A
DoD-02	Northern Systems Wastewater System				\$ -	N/A	N/A
		\$ 51,563,374.19			\$ 44,989,000.00		

Electrical Engineering Support

CIP #	CIP Description	2016 Bond Allotment	% encumbered	% available	2020 Bond Allotment	% encumbered	% available
EE 05-02	SCADA Pilot Project	\$ -	N/A	N/A	\$ -	N/A	N/A
EE 09-01	Wastewater Pumping Station Electrical Upgrade	\$ -	N/A	N/A	\$ -	N/A	N/A
EE 09-02	Electrical Upgrade - Water Wells	\$ -	N/A	N/A	\$ -	0.00%	0.00%
EE 09-03	Electrical Upgrade - Water Booster	\$ -	N/A	N/A	\$ -	N/A	N/A
EE 09-04	Electrical Upgrade - Water Booster	\$ -	N/A	N/A	\$ 150,000.00	0.00%	100.00%
EE 09-05	Electrical Upgrade - Other Water	\$ -	N/A	N/A	\$ 100,000.00	0.00%	100.00%
EE 09-06	SCADA Improvements - Phase I	\$ -	N/A	N/A	\$ -	N/A	N/A
EE 09-07	SCADA Improvements - Phase 2	\$ -	N/A	N/A	\$ 45,000.00	0.00%	100.00%
EE 09-08	SCADA Improvements - Phase 3	\$ 1,077,497.00	74.43%	25.57%	\$ 25,000.00	0.00%	100.00%
EE 09-09	SCADA Improvements - Phase 4	\$ 4,378,118.00	69.37%	30.63%	\$ -	N/A	N/A
MP-Gen-EE-01	SCADA Implementation Phase A2 – Initial Project Completion				\$ 4,250,000.00	0.00%	100.00%
MP-Gen-EE-02	SCADA Implementation Phase B – Additional Sites				\$ -	N/A	N/A
MP-Gen-EE-03	SCADA Implementation Phase C – Additional Instruments				\$ -	N/A	N/A
MP-Gen-EE-04	SCADA System Improvement Program				\$ -	N/A	N/A
		\$ 5,455,615.00			\$ 4,570,000.00		

Miscellaneous Engineering Support

CIP #	CIP Description	2016 Bond Allotment	% encumbered	% available	2020 Bond Allotment	% encumbered	% available
MC 05-01	Laboratory Modernization	\$ 1,127,000.00	100.00%	0.00%	\$ -	N/A	N/A
MC 05-02	Land Survey	\$ 1,260,524.00	99.35%	0.65%	\$ -	N/A	N/A
MC 09-01	General Plant Improvements	\$ 1,543,760.00	88.61%	11.39%	\$ -	N/A	N/A
MC 15-01	Information Technology Intergration Improvements	\$ 500,000.00	71.90%	28.10%	\$ -	N/A	N/A
MP-Gen-Misc-01	GWA Systems Planning				\$ 550,000.00	0.00%	100.00%
MP-Gen-Misc-02A	WRMP Update (Comprehensive Update)				\$ -	N/A	N/A
MP-Gen-Misc-02B	WRMP Update (Interim Update)				\$ 200,000.00	0.00%	100.00%
MP-Gen-Misc-03	Surveying and Property Delineation				\$ 250,000.00	0.00%	100.00%
MP-Gen-Misc-04	Information Technology Improvements				\$ 1,650,000.00	43.01%	56.99%
MP-Gen-Misc-05	GWA Infrastructure Improvements				\$ 2,500,000.00	0.00%	100.00%
MP-Gen-Misc-06	GPWA Fleet Maintenance Facility				\$ 500,000.00	0.00%	100.00%
MP-Gen-Misc-07	Mobile Equipment Replacement Program				\$ 800,000.00	0.00%	100.00%
MP-Gen-Misc-08	General Plant Improvements				\$ 1,000,000.00	0.00%	100.00%
MP-Gen-Misc-09	Security and Resilience Program				\$ 200,000.00	0.00%	100.00%
		\$ 4,431,284.00			\$ 7,650,000.00		

	2016 Bond Allotment	2020 Bond Allotment
CIP Water	\$ 81,331,136	\$ 66,291,000
CIP Wastewater	\$ 51,563,374	\$ 44,989,000
CIP Electrical	\$ 5,455,615	\$ 4,570,000
CIP Miscellaneous	\$ 4,431,284	\$ 7,650,000
	\$ 142,781,409	\$ 123,500,000

Bond Fund	Construction Fund Amount (\$M)	Estimated # of months fund available for use	Total Funds encumbered to date (\$M)***	% of fund used	Rate of Spending: (\$M) per year
2005	\$82.930	82*	\$82.930	100.00%	12.14
2010	\$87.638	120**	\$84.123	95.99%	8.41
2013	\$139.442	82**	\$135.224	96.97%	19.79
2016	\$142.781	52**	\$128.318	89.87%	29.61
2020	\$123.590	7**	\$0.794	0.64%	1.36

* End date November 2013 via CCU Resolution 06-FY2014

** Includes month of January 2021

*** Includes Expenses Only

B. Projects Procurement

Percentage Key:

100%	Approved by GM
99%	Signature required from either Accounting/Legal/GM
98%	Processing engineering service or construction contract (with legal)
95%	Request for CCU approval (GM/engineering)
90%	A/E fee negotiation or contractor bid evaluation (engineering)
80%	Selected A/E or Conducted bid opening (engineering)
70%	Advertised RFP/IFB (engineering)
60%	RFP/IFB Package under legal review
50%	RFP/IFB Package completed (engineering)
Less than 50%	Project Scope of work development in progress

- Red text anywhere indicates a change from the last report.

BOX KEY FOR PROCUREMENT:

(Type of Procurement) (Relevant CIP NO. or Funding Source)	(Project Title)	
(Percentage complete for procurement)	Activities/Notes: (see percentage key above)	Consultant (listed when selected)
Project Description	Summary of project description	

<u>BID PACKAGE</u> PW 09-02	New Well Construction (AG-10-Y-8 & AG-12)	
<50% Complete	Activities/Notes: GWA engineering continuing discussion with Dept. of Agriculture and lessee on options of acquisition of property for well site at AG-12. Internal GWA discussions underway for survey and appraisal services. GWA executed Change Order with GHD to update the design plans specific to the new well locations.	
Project Description:	The project is to construct three new production wells for GWA as well as installation of a water main to connect the new production wells to the Ysengsong Reservoirs.	

<u>RFP</u> PW 09-02	New Well Construction (Construction Management)	
<50% Complete	Activities/Notes: SOW being developed	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the construction of up to three (3) new production wells for GWA. GWA plans to increase source water production to improve system redundancy that allows for operating the water production wells more effectively. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

RFP USEPA	Design of Dungca Beach Sewer Relocation	
90% Complete	Activities/Notes: Negotiating fee proposal with the selected A-E firm.	
Project Description:	The work performed under this project procurement shall consist of replacement of a sewer main located along the shores of Dungca Beach, from the Bayside Sewer Pump Station (SPS) to an area north of Lagoon Drive. The new sewer main shall be located within the public right of way along Trankilo Road and Lagoon.	

RFP USEPA	Design of Hagatna Main Sewage Pump Station Redundant Force Main	
<90% Complete	Activities/Notes: Negotiating fee proposal with selected A-E firm.	
Project Description:	The work to be performed under this project procurement shall consist of identifying redundant force main options and to investigate the current condition of the existing force main. If repair/relocation is needed, then identify options and provide the design for the selected options, including pump station upgrades, if necessary.	

RFP USEPA	Design of Fujita Sewage Pump Station Redundant Force Main	
<90% Complete	Activities/Notes: Negotiating fee proposal with the selected firm.	
Project Description:	The work to be performed under this project procurement shall consist of identifying redundant force main options and provide the design for the selected option. After the redundant force main is placed in operation, investigate the condition of the original 14-inch force main to determine if repair, relocation, or replacement is needed in order to ensure force main redundancy. Identify options and provide the design for the selected option, including potential use of CIPP and if necessary, pump station upgrades.	

RFP USEPA	Design of Hagatna Wastewater Treatment Plant Causeway and Facility Structural Analysis	
<90% Complete	Activities/Notes: Negotiated fee proposal with consultant. Processing A-E agreement.	
Project Description:	The work to be performed under this project procurement shall consist of assessment of the structural integrity of the causeway for continued operations, including: vehicular traffic (to include heavy vehicles such as pumping trucks and construction equipment); pedestrian traffic; as a conveyance for utilities to the WWTP and potentially, a conveyance for a new force main; evaluation of culvert hydraulics, and inspection of vertical members, including underwater inspections. Also, to assess the structural integrity of WWTP building structures including concrete and metal structures/components.	

<u>BID PACKAGE</u> USEPA	Asan-Adelup-Hagatna, Route 1 Sewer Rehabilitation and Replacement – Phase II	
100% Complete	Activities/Notes: Construction contract approved on 01/22/21. NTP issued on January 22, 2021.	
Project Description:	Work to be performed under this project shall consist of cleaning and rehabilitating existing 16-inch, 24-inch and 27-inch diameter gravity sewer lines with cured-in-place pipe (CIPP) liner, reinstating sewer laterals after CIPP rehabilitation is complete, replacing sewer manhole concrete collars, and providing temporary bypassing and traffic control as necessary to complete the rehabilitation work.	

<u>BID PACKAGE</u> USEPA-SRF	Groundwater Wells A-02, A-07, A-12, D-05 and F-03 Rehabilitation (Re-Bid)	
70% Complete	Activities/Notes: Project was advertised for construction on 08/04/2020. The bid proposal deadline has been extended and is due on 10/15/2020 per Addendum no.2. Designer submitted revisions to the plans and specification and will be included in an Addendum no.3 after GWA reviews. As of 10/15/2020 - No bids were submitted. GWA is conducting feedback with registered bidders to determine cause for no bid submission. Pending responses for no bid.	
Project Description:	Work to be performed under this project consist of rehabilitating four (4) existing production well sites including development, testing and permitting of a new production well.	

<u>BID PACKAGE</u> OEA GRANT	Northern Guam Lens Aquifer (NGLA) Monitoring System Expansion Project for the Guam Water and Wastewater Infrastructure Improvements Program	
95% Complete	Activities/Notes: Bid opening conducted on 09/04/2020. Bid evaluations completed Received CCU approval last September 2020. Award pending grant fund transfer.	
Project Description:	Work to be performed under this project consist of installation of seven new monitoring wells and rehabilitation for two existing monitoring wells on Department of Defense (DoD) property.	

<u>BID PACKAGE</u> GWA BOND	Casimiru Waterline Replacement	
90% Complete	Activities/Notes: Contractor submitted bonds and insurance documents. Processing construction contract.	
Project Description:	Work to be performed under this project consist of replacement of existing 6-inch asbestos cement pipe with new 6-inch PVC pipes and appurtenances; reconnection of existing service connections and tapping to the main line, installation of fire hydrants, asphalt road restoration, and testing, complete in place and ready for use.	

<u>BID PACKAGE</u> GWA BOND	Yigo Sewer Pump Station Flood Mitigation and Facility Rehabilitation	
80% Complete	Activities/Notes: Bid opening conducted on 01/26/2021. Evaluating bid proposals.	
Project Description:	Work to be performed under this project consist of demolition of existing building features and equipment, including the existing power pole and power meter, plumbing fixtures and piping, water service piping, electrical system, ventilation system, building fascia and monorail beam and construction of rehabilitation and flood mitigation features including structural wall repairs, flood barrier gates, raised louver sills, cantilever monorail beam, elevated platforms, ventilation system, site work, site water piping, utility tie-in connections, protective coatings, electrical system, instrumentation and controls, testing, startup, and appurtenant work.	

<u>BID PACKAGE</u> GWA BOND	Tai Road/S-13 and Canada-Toto Loop/Blas Street Waterline Replacement	
70% Complete	Activities/Notes: IFB advertised on 01/07/2021. Pre-Bid meeting held on 01/19/2021. Bid opening scheduled for 02/19/2021.	
Project Description:	Work to be performed under this project consist of replacing an existing 6-inch asbestos cement pipe (ACP) water line with a new 8-inch polyvinyl chloride (PVC) water line along Tai Road; replacing an existing 2-inch water line with a new 6-inch water line along S-13; reconnecting existing branch water lines, service connections and other water appurtenance connections from an existing 6-inch ACP water line to an existing 12-inch PVC water line along Canada-Toto Loop; and replacing an existing 6-inch ACP water line with a new 6-inch PVC water line along Blas Street.	

BOX KEY FOR PROJECT:

(Type of Project) (Relevant CIP NO.)	(Project Title) (Contractor or consultant)	Start Date: (month and year)
(Percentage complete for project)	Activities/Notes: (brief description of activity)	Completion Date: (month and year)
(Court Order Paragraph No.)	(Project type)	
Project Description	Project Description Narrative	

C. CIP Water Section

INSPECTION PW 05-02	Inspection & Maintenance Repairs to GWA Island-Wide Steel Water Tank Reservoirs Phase 2 (DCA)	Start Date: April 2010
75% Complete	Activities/Notes: Remaining work is API inspection, API report, structural inspection, tank bypass planning, and partial construction for the repair work. GWA processing work order for full time CM services under ID/IQ contract with DCA. Ongoing CM inspection services for the Yigo no. 3 and Agat-Umatat steel tank repair and Santa Ana bypass work. API and structural inspections at Windward Hills are going as of 02/04/2021. Inspection is anticipated to be completed by 02/05/2021. Continuing review of submittal, RFIs, and project payments. Conducting meetings.	Completion Date: To be determined (TBD)
CO 38C	Engineering inspection services	
Project Description:	The Court Order requires GWA to inspect all active and in some cases inactive water reservoirs. The inspection results will allow GWA to determine if a reservoir requires repair or replacement.	

DESIGN PW 05-12	Brigade II BPS Upgrade (EM Chen)	Start Date: April 2012
100% Complete (Basis of Design) 99% Complete (Design)	Activities/Notes: Design plans and specs continue to be reviewed and revised.	Completion Date: TBD
N/A	Engineering design services	

Project Description:	The design project is intended to assess system water supply feed from the north as well as Ugum WTP and the water demands downstream from the Brigade BPS so as to reconfigure the piping into the BPS and resize the pumps to meet system head requirements.
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DESIGN PW 09-11	Northern and Southern Guam Reservoir Design (TG Engineers)	Start Date: May 2015
90% Complete	Activities/Notes: <u>Ugum Reservoir</u> Design is at 90%. Designer is working towards 100%. A change order may be needed for new instrumentation building. Instrumentation building was requested by Ron Topasna. New building to house chlorine analyzers and TOCs equipment. Current location at bps is too small to properly house the equipment. GWA and TGE are working on the SCADA modification plans and specifications to integrate new tank and processes. <u>Inarajan and Agfayan Booster Pump Station</u> Biological Assessment and Archaeological report are pending. TGE proceeding with design at both sites. <u>Santa Rosa, Santa Rita, and Sinifa Reservoir</u> Under construction. See Santa Rosa, Santa Rita, and Sinifa Construction for update.	Completion Date: Completion will be in line with construction completion.
CO 29 (b)(4)	Engineering design services	
Project Description:	The design services will consist of preparation of plans, specifications, and estimates (PS&E), which includes Basis of Design, design calculations, hydraulic modeling (EPANET), computational fluid dynamic modeling (CFD), construction schedule, topographical survey, property research, property mapping, geotechnical engineering, cultural resource inventory and evaluation of historic resources, hazardous materials survey, construction documents, design drawings in Auto CAD, relevant permit, construction bid support service, and response to request for interpretation/information during construction. The tank locations are Ugum, Santa Rita, Santa Rosa, Inarajan and Sinifa.	

DESIGN PW 12-04	Central Guam Reservoirs Design (GHD Inc.)	Start Date: May 2015
92% Complete	<p>Activities/Notes:</p> <p><u>Tamuning No. 2 Reservoir and Tamuning Booster Pump Station</u> 90% design submitted. Plans is under review by GWA.</p> <p>Per Bobbie, property acquisition letter for Lot 1, Block 5, Tract 1427 has been signed by GM. Property purchase is underway.</p> <p>Archaeological survey is pending archaeologist schedule. Biological survey completed.</p> <p><u>Manenggon Reservoir and Access Booster Pump Station</u> 100% design revision submitted. Plans is under review by GWA.</p> <p>Biological Assessment report completed. Archaeological report will need to be expanded. Pending archaeologist schedule for additional site visits.</p> <p><u>Piti Reservoir</u> DCA and GHD are working to put the bid package together. DCA has already completed the major steel tank repair plan and specifications. GHD is working on site utility plan and specifications.</p> <p>GWA has not submitted the Right of Way application to National Parks Services yet. GWA has received the final Dept. of Agriculture consultation response letter. Biological Assessment report has been completed. Archaeological report needs to be completed before ROW application can be submitted.</p> <p>Waiting on National Park Service to allow Archaeologist to go onsite to perform survey. GWA did a follow up on this request. National Park Service sent the request to their national office for review and approval.</p> <p><u>A23-A25 Deepwell (PFAS Treatment)</u> 90% submittal under review by GWA. Design meeting with Operations scheduled for 02/09/2021.</p> <p>A23 and A25 MOU sent to DPW for signature. No response from DPW.</p>	<p>Completion Date: Completion will be in line with construction completion.</p>

	<u>Tumon No. 1, Hyundai, Chaot No. 2 Reservoir</u> Under construction. See Tumon no. 1, Hyundai, Chaot no. 2 Reservoir Construction for update.	
CO 29 (b)(4)	Engineering design services	
Project Description:	The design services will consist of preparation of plans, specifications, and estimates (PS&E), which includes Basis of Design, design calculations, hydraulic modeling (EPANET), computational fluid dynamic modeling (CFD), construction schedule, topographical survey, property research, property mapping, geotechnical engineering, cultural resource inventory and evaluation of historic resources, hazardous materials survey, construction documents, design drawings in Auto CAD, relevant permit, construction bid support service, and response to request for interpretation/information during construction The tank locations are Hyundai, Pulantat, Chaot #2, Tumon #2, Piti & Tumon #1.	

CONSTRUCTION PW 09-03	Line Replacement Phase IV (Giant Construction)	Start Date: February 14, 2016
98% Complete	Activities/Notes: GEPA to conduct water testing. Contractor to tie-in the new waterline to existing waterline as soon as Water Operation permits.	Completion Date: October 28, 2020
	Construction Services	
Project Description:	The project is intended to replace existing water lines that have been found by operations to be leaking and/or are causing service delivery to less than what GWA is required to provide. The project will replace water mains at ten known locations throughout the island and a component within the bid where line replacement work for unknown locations is accounted for.	

DESIGN PW 05-15	Asan Springs Rehabilitation Design (HDR)	Start Date: August 24, 2016
82% Complete	Activities/Notes: Designer submitted a letter to NPS to coordinate the archaeological survey requirements with SHPO; response pending. Designer submitted the biological survey approach to NPS, permit is pending.	Completion Date: June 2022
	Engineering design services	

Project Description:	<ul style="list-style-type: none"> - Perform site visits and condition assessment for site conditions to determine demolition and rehabilitation requirement, process equipment condition, structural condition, and electrical system. Site condition assessment shall include all disciplines to execute the project. - Review and validate the current property boundary information to confirm the available space for the project development. - Perform an environmental impact study and prepare all required permits as needed. - Perform an archeological and historical resources study to identify potential impact to the project, prepare all required permits as needed. - Coordinate with Guam Historic Resources Division State Historic Preservation Office (SHPO) on historical resources study. Prepare all necessary reports and documents as required by SHPO. - Coordinate with Guam Department of Agriculture, Division of Aquatic and Wildlife Resources (DAWR) on vegetation clearance. Prepare all necessary reports and documents required by DAWR. - Identify the existing and projected service area, period of design. - Identify and recommend conceptual water treatment system. - Perform a Class 4 engineering cost estimate according to the American Association of Cost Engineers (AACE) International Cost Estimate Classification System for construction fee. Cost must include all disciplines, permit, construction and administration that are necessary to execute the project. All costs will be in current dollars and escalated to the estimated midpoint of construction.
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CONSTRUCTION PW 09-11, PW 12-05	Yigo/Astumbo Tank Construction (Pernix)	Start Date: December 1, 2016
99% Complete	Activities/Notes: GWA and CM is working with Pernix to close out project. Final walkthrough completed . Awaiting final project closeout documents.	Completion Date: October 31, 2018
	Construction Services	
Project Description:	This project will involve construction of two (2) 2MG concrete tanks and Booster Pump Station at the Yigo site and a one (1) 2MG concrete tank at the Astumbo site. Work will involve new pipe line, valves, electrical controls, pumps and motors, site drainage, paving, generator for the BPS, SCADA, etc.	

CONSTRUCTION MANAGEMENT PW 09-11, PW 12-05	Yigo/Astumbo Tank Construction Management (GHD)	Start Date: December 2016
99% complete	Activities/Notes: Working to complete project close out requirements but due to additional time required by contractor, CM services follow suit.	Completion Date: August 2019
N/A	Construction Management services	

Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the demolition of existing steel elevate and ground tanks as well as the construction of the 2MG concrete tanks at the Yigo tank location and Astumbo tank location. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.
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CONSTRUCTION MANAGEMENT PW 12-04, PW 12-06 AND PW 09-11	Central Tank Phase I (Chaot #2, Tumon #2, Hyundai) Construction Management (TG Engineers, PC)	Start Date: December 2017
95% complete	Activities/Notes: Change Order no. 1 sent to GWA management for approval. Change Order no. 2 will be forthcoming to extend CM services to 12/2020. As of 01/01/2021, GWA water CIP engineering will take over CM duties for remaining work. CM will be onboard for limited services – Eadoc project software management and conducting meetings/meeting minutes.	Completion Date: March 2021
N/A	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the construction of three water reservoirs; 0.5MG Chaot #2, 1MG Tumon #2 (Nissan) and 1MG Hyundai. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

CONSTRUCTION PW 12-04, PW 12-06 AND PW 09-11	Central Tank Phase I (Chaot #2, Tumon #2, Hyundai) Construction (AIC)	Start Date: February 8, 2018
89% Complete	Activities/Notes: <u>Tumon No. 1</u> Tumon no. 1 online – 08/20/2020. Working on St. John's PRV. Pale San Vitores HEP pending DPW approval. DPW will not issue permit until St. John's PRV work is completed. <u>Barrigada Heights No. 1 (Hyundai)</u> Barrigada Heights no. 1 online – 10/09/2020. Awaiting booster pump system to arrive. Additional connection to the new bps pumped zone for houses pass the Hyundai tank. <u>Chaot No. 2</u>	Completion Date: TBD (Completion date has passed. Pending time extension for permit delays.)

	<p>Chaot No. 2 tank online – 09/02/2020.</p> <p>Contractor working on A-series well, Dero Rd connection to Leo Palace line, chlorination system improvements and miscellaneous improvements.</p>	
	Construction Services	
Project Description:	The work performed under this project procurement shall consist of Construction of three water reservoirs; 0.5MG Chaot #2, 1MG Tumon #2 (Nissan) and 1MG Hyundai. Some piping work off site from the reservoir is also required to ensure the reservoirs function optimally.	

<u>CONSTRUCTION MANAGEMENT</u> PW 09-11	Northern and Southern Tank Phase I (Santa Rosa, Sinifa, Santa Rita) Construction Management (GHD)	Start Date: April 2018
0% Complete	Activities/Notes: Change Order no. 1 issued. Santa Rita NTP issued to CM on 12/14/2020. Santa Rosa NTP issued to CM on 01/11/2021.	Completion Date: Santa Rosa: 455 days from NTP Santa Rita: 485 days from NTP Sinifa: 425 days from NTP.
N/A	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the construction of three water reservoirs: 1MG Santa Rosa, 1MG Sinifa and 1MG Santa Rita. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

<u>CONSTRUCTION</u> PW 09-11	Northern and Southern Tank Phase I (Santa Rosa, Sinifa, Santa Rita) Construction (AIC)	Start Date: October 2019
3% Complete	Activities/Notes: Santa Rosa: Excavation for tank foundation and retaining wall. Awaiting geotechnical engineer review and approval. Building permit received 02/02/2021. Santa Rita: Ongoing tank demolition. Oiled sand under tank TCP levels above GEPA's requirements. Oiled sand will have to be	Completion Date: Santa Rosa Final Completion – February 13, 2022 Santa Rita Final Completion – March 15, 2022

	disposed as hazardous waste. Change order will need to be negotiated and issued. Sinifa: Pending permit. SHPO provided comments to the Archaeological report. Pending TGE and their Archaeological sub to respond to SHPO's comments.	Sinifa Final Completion – January 14, 2022
	Construction Services	
Project Description:	The work performed under this project procurement shall consist of Construction Services of three water reservoirs: 1MG Santa Rosa, 1MG Sinifa and 1MG Santa Rita. Some piping work off site from the reservoir is also required to ensure the reservoirs function optimally.	

<u>CONSTRUCTION</u>	Pressure Zone Realignment and Tank Repair-Replacement – Phase I (Sumitomo)	Start Date: December 17, 2019 (Notification of Award)
0% Complete	Activities/Notes: NTP issued 05/06/2020. Construction work active at Kaiser, Carnation, and Clara PRV sites. Excavation to begin at Ysengsong and Okkodo areas within the next 2 weeks. Construction meetings are ongoing. GPA approved application for electrical services. COP No. 2 received from contractor. Co No. 1 not yet signed by SMCC; pending cost estimates for additive bid item materials. CO No.2 for time extension pending.	Completion Date: May 6, 2021
N/A	Construction Services	
Project Description:	The work performed under this project procurement shall consist of Construction Services for the installation of control valves (PRVs, PRSVs), piping, and related electrical upgrades to properly control and measure system flow between zones.	

<u>DESIGN</u> PW 05-12	Pressure Zone Realignment and Tank Repair-Replacement (GHD)	Start Date: August 2018
Design will be done in Phases. Phase I - 100% (Design) Phase II - 80% (Design)	Activities/Notes: Designer submitted Phase II 60% plans on 08/04/2020 and reviewed by Water CIP Engineering team on 08/11/2020. Engineering, Operations and designers performed several site visits and investigations for Phase II and III. Change Order no. 4 for Design services for the Nimitz Hill Waterline Replacement & Phase II CM services is in the works.	Completion Date:
N/A	Engineering design services	

Project Description:	The design project is intended to assess current and recommended pressure zones, and design and install control valves (PRVs, PRSVs) to properly control and measure system flow between zones. Scope also includes setting up pilot DMAs; and design for new or repaired water tanks needed to complete the court order tank requirements.
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DESIGN, CONSTRUCTION, CONSTRUCTION MANAGEMENT PW 09-11	Tank Repair and Bypass (DCA, AIC, GWA)	Start Date: May 1, 2020
16% Complete	Activities/Notes: Construction contract effective 04/21/2020. NTP issued 05/01/2020 with modified language for work starting onsite. Agat-Umatat and Yigo no. 3 repairs ongoing. Astumbo no. 1 delayed due to presence of lead paint. Negotiating change order to remove lead paint. Astumbo no. 1 may be held. Due to material shortage, metal plate may be used to repair Windward Hills tank, which is more crucial than Astumbo. Windward Hills has been taken down for API and structural inspections. Inspection to be completed by 02/05/2021. Santa Ana bypass work is ongoing. Permits received for the remaining bypass work. Umatat Subdivision, Malojloj, etc.	Completion Date: TBD (Dependent on repairs required after inspection)
Project Description:	The work to be performed under this project consist of installing by-pass piping, valves, etc. ahead of certain tank inspection work. The operation of the by-pass will allow the tank inspector to determine appropriate repairs after which the contractor will proceed to repair the tank.	

DESIGN PW 09-02	New Well Site Development - Y-08, AG-10, AG-12 (GHD)	Start Date: September 2018 (Extension)
99% Complete	Activities/Notes: 100% plans and specifications were submitted on 06/04/2020. Change Order no. 8 to complete final plan set and engineer estimate is under negotiation with GHD.	Completion Date: TBD
N/A	Engineering Design Services	
Project Description:	The design project is intended to design 3 new wells to increase production capacity. The design services will consist of preparation of	

	plans, specifications, and estimates (PS&E), which includes Basis of Design, design calculations, construction schedule, construction documents, design drawings in Auto CAD, relevant permit, construction bid support service, and response to request for interpretation/information during construction.	
CONSTRUCTION PW 14-01	Fire Hydrant Replacement Phase I (Mega United Corporation, Ltd.)	Start Date: October 19, 2019
0% Complete	Activities/Notes: The building permit was issued to Mega United, the project is pending for DPW Highway Encroachment permit approval, DPW wants to issue a renewable monthly encroachment permit but Mega wants one year encroachment permit good for the duration of the project. DPW Highway Encroachment personnel requested for a copy of Performance and Payment Bond and was been forwarded. Updated Performance and Payment Bond was requested from Mega.	Completion Date: October 25, 2020
Project Description:	The work performed under this project consist of replacing the dry barrel fire hydrants with wet barrel type fire hydrants. The replacement will involve removal of defective fire hydrant laterals, gate valves, hydrant stem and barrel and other appurtenances necessary to complete the project.	
CONSTRUCTION PW 05-07	Groundwater Well Production Meter Replacement Project (Giant Construction)	Start Date: April 29, 2020
8% Complete	Activities/Notes: - Water meters will arrive 02/02/2021. Expected delivery to contractor's warehouse is 02/08/2021. - Contractor completed pouring of concrete footing for pipe supports in 17 well locations. - Partial assembly of the discharge piping has started. - Testing all water meters prior to their installations have been coordinated with GWA Meter Testing (MTF). MTF expects to complete testing of the 30 meters in 3 weeks (10 meters per week). - Contractor began coordination with GEPA on their proposed method of pressure testing and disinfection of the assembled above ground discharge piping. After receipt of the meters, Contractor plans to submit time extension request due to delay in the shipment of materials.	Completion Date: June 28, 2021
	Construction services	

Project Description:	Work to be performed under this project shall consist of replacing the production well meters and associated well head piping. Construction management is performed in-house.
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D. CIP Wastewater Section

<u>CONSTRUCTION</u> WW 09-06	Bayside SPS Improvements Design (EMPSCO)	Start Date:
9% Construction Services	Activities/Notes: <ul style="list-style-type: none"> - Continue trenching of underground power cable and secondary handhole with an Archeologist to monitor the area if artifacts present. - Continue to review submittal, shop drawings and RFI's. - Upcoming Change Request, dewatering of existing dry well and provision of auto dialer and generator enclosure, additional silt fence along easement heading to pump station and provision of bollard. 	Completion Date: November 28, 2021
CO #3	Engineering design services	
Project Description:	The intent of this project for an engineering firm to prepare design drawings and specification to upgrade the Bayside Sewer Pump Station given the facility is in major disrepair and the adjacent river is eroding away the access road to the facility which is causing maintenance challenges and install underground power cable due to GPA's concern that existing power pole, located on the bank is at risk of being lost due to storm surges.	

<u>CONSTRUCTION</u> WW 11-04	Umatac-Merizo WWTP Design Build Improvements Project (CoreTech)	Start Date: June 2017
100% Design 100% Construction	Activities/Notes: BC delivered the close-out documentation to GWA, including final report from OSR (SSFM).	Completion Date: January 6, 2020
	Construction services	
Project Description:	The project is intended to improve the aeration basin, construct a new sewer pump station, regrade the overland field, construct a new effluent storage tank and disinfection facility. The overland percolation terraces are being regraded to ensure appropriate distribution of effluent through the entire terrace.	

CONSTRUCTION MANAGEMENT WW 11-04	Umatac-Merizo WWTP Design Build Improvements Project (SSFM Inc)	Start Date: September 7, 2017
100% Complete	Activities/Notes: CM checked As-Built drawings and made comments. Final payment submitted to GWA. Project Completed.	Completion Date: January 2020
	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the improvements works at the aeration basin, new sewer pump station, overland field improvements, effluent storage tank. The overall goal of the On-Site Representative is to ensure materials are installed and installation conforms to the contract plans and specifications and that all required testing is performed and passes.	

E. CIP Engineering Support

DESIGN EE 09-08	SCADA System for Water and Wastewater Facilities Phase A-1 (AECOM)	Start Date: June 11, 2015
100% Complete (Design) 84% Services during construction	Activities/Notes: Negotiate changes to the remaining tasks to better align with current state of the system.	Completion Date: November 2017 - Design December 11, 2019 - (Bid and Construction Support)
N/A	Engineering design services	
Project Description:	The A/E firm will design an integrated, robust and secure Supervisory Control and Data Acquisition (SCADA) system for GWA's water and wastewater systems, and to provide support services during bid and construction. The 22 sites will consist of a combination of water facilities such as production wells, reservoirs, booster pump station and wastewater sites include sewer treatment plants and sewer pump stations. Executed by approved change orders, number of sites in original design scope has changed from 22 sites to 19 sites and design of High Water Alarm for 20 critical sewer pump stations has been added. Scope also includes bid and construction support of the design-build project of GPWA SCADA EMS project.	

CONSTRUCTION EE 09-08, EE 09-09	SCADA Phase A-1 Construction (G4S Security)	Start Date: July 13, 2018
100% Construction	Activities/Notes: Final Payment was issued on 12/07/2020. This contract is now closed; defect detection period expires on 06/30/2021.	Completion Date: December 31, 2019
	Construction services	

Project Description:	The work performed under this project procurement shall consist of Construction of SCADA ready instrumentation at several water and wastewater facilities throughout the island.	
CONSTRUCTION MANAGEMENT EE 09-08, EE 09-09	SCADA Phase A-1 Construction Management (GHD)	Start Date: July 13, 2018
96% Complete (due to increased contract amount and unbilled balance)	Activities/Notes: CM finalizing project close out documents and preparing final billing.	Completion Date: August 31, 2020
	Construction Management services	
Project Description:	The work performed under this project procurement shall consist of Construction Management and Inspection Services for the installation SCADA ready instrumentation at several water and wastewater facilities throughout the island. The overall goal of the Construction Manager (CM) is to manage the entire construction process so that the project can be delivered efficiently and professionally.	

F. GIS Section

MAPPING MC 05-02	Island Wide Survey- (Duenas, Camacho & Ass.)	Start Date: December 2007
99% complete	Activities/Notes: Still on hold for the Tumon no.1 Tank (aka Airport Tank).	Completion Date: October 2019
	Survey services	
Project Description:	The contracted land surveyor is required to conduct title research, property valuation and mapping of property boundaries where GWA facilities are located, including the lots which are not registered under GWA's name.	

MAPPING MC 05-02	Island Wide Survey PH II - (Duenas, Camacho & Ass.)	Start Date: August 30, 2017
80% complete	Activities/Notes: First 3 land registration maps signed by GWA GM. Submitted to DCA for DLM survey process.	Completion Date: December 2019 - Request for extension sent to GM 10/29/2019 – due to myriad of reasons, extended periods of inclement weather, delays in DLM Survey review and approval of property maps and changes of additional scope of survey work.

	Survey services	
Project Description:	The work performed under this project procurement shall consist of a professional land surveyor conducting field work to mark corners of existing government properties as a means of severing out portions of the larger property to be deeded to GWA. Surveyor shall also prepare all necessary maps and documents for recording at DLM.	

G. Permits SectionPERMITS
MONTHLY REPORT 2021

	2021												
Description	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
Building Permit	26												26
Occupancy Permit	11												11
New Installation	19												19
Sewer Application	0												0
Sewer Inspection	0												0
Private Utility Acceptance	0												0
Relocation of Water Meter	2												2
Tapping-Water	1												1
Tapping-Sewer	1												1
Clearance-Water	25												25
Clearance-Sewer	1												1
Highway Encroachment	9												9
Verification of Utilities	14												14
Fire Flow Test	1												1
Schedule Water Outage	0												0

NOTE: Completed work orders for each calendar month are reported.

**AVERAGE PROCESSING TIME FOR COMPLETION (DAYS)
FOR THE CALENDAR MONTH OF **JANUARY 2021****

Description	2021											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Building Permit	35 ^{a1}											
Occupancy Permit	0											
New Installation	56 ^{a2}											
Sewer Application	0											
Sewer Inspection	0											
Private Utility Acceptance	0											
Relocation of Water Meter	259 ^{a3}											
Tapping-Water	93											
Tapping-Sewer	0											
Clearance-Water	4											
Clearance-Sewer	7											
Highway Encroachment	0											
Verification of Utilities	16											
Fire Flow Test	16 ^{a4}											
Schedule Water Outage	0											


Subscript comments are based on what occurred during the month of **January**

- a1** Additional information/revised plans were needed, including COVID-19 5-day holding period before plans could be reviewed.
- a2** Several of the owner's contractors were not ready to do installation or plumbing work until months later.
- a3** Work was pending customers completing easement clearing, upgrading a service lateral and rerouting a waterline to a new meter relocation.
- a4** Customer needed more time to complete his fire flow test form and submit it to the GWA Permits inspector.

H. USEPA SRF Project Status Report

United States Environmental Protection Agency State Revolving Funds (USEPA SRF)

- Projects listed below that are noted to be in the procurement phase will follow the "Percentage Key" below.
Percentage Key:

100%	Approved by GM
99%	Signature required from either Accounting/Legal/GM
98%	Processing engineering service or construction contract (with legal)
95%	Request for CCU approval (GM/engineering)
90%	A/E fee negotiation or contractor bid evaluation (engineering)
80%	Selected A/E or Conducted bid opening (engineering)
70%	Advertised RFP/IFB (engineering)
60%	RFP/IFB Package under legal review
50%	RFP/IFB Package completed (engineering)
Less than 50%	Project Scope of work development in progress
- Red text anywhere indicates a change from the last report.
- Cells highlighted in green  indicate contract amount certified and project active.

NOTE: Table below only reflects SRF projects that are still active. All other projects previously shown are on prior reports

GWA Work Session - February 16, 2021 - DIVISION REPORTS

Project	Project Description	Project Manager	Phase		Start Date (NTP Issued)	Anticipated Completion Date	Contract Amount	Contractor	Status as of 02/05/2021
3	Asan-Adelup-Hagatna RT1 Sewer Line Rehabilitation and Replacement	Brown & Caldwell	Design	2	12/11/2015	3/30/2017 for Design requirements	\$ 1,780,210.00	HDR	HDR assisting as needed. Also, Archaeological monitoring through HDR contract. HDR CO for archaeological monitoring and additional construction services approved by GWA. This CO will include design services for Phase II (Adelup to Hagatna).
			Construction	2	11/9/2018	3/8/2020	\$6,275,783.00	InfraTech	InfraTech (via Allied Trenchless) completed Cleaning/CCTV for areas they were able to access. COWS submitted to GWA for approval. Covers some additional work plus adds time. Continuation of point repairs by Asan Beach Market. CCTV of Asan River crossing done. Concluded it can be cleaned and lined. Pavement restoration of trench crossing Rt.1 into the Asan Pump Station completed. Contractor claiming for re-ordering CIPP materials (\$166K). Preliminary recommendation by CM and PM is that the claim is unwarranted.
			Construction (Phase II)				\$ 4,000,000.00		Asan-Adelup-Hagatna Bid advertised on 06/16/2020. Bid submission date moved to 09/03/2020. Four Bids received. PPBC is the apparent low bidder. Low bidder responsibility being evaluated. Contractor was asked to provide information substantiating the liner company and liner worker experience to determine qualifications meeting the requirements specified. Adelup to Hagatna Low bidder PPBC rejected for non-responsibility determination. PPBC so advised. GWA evaluated second low bidder – CoreTech. Notice of Intent to award sent to CoreTech-Hawaiian Dredging. Contract award anticipated by the end of January. Scope is base bid items plus all additive items. CoreTech submitted bonds. Contract awarded, signed by GWA and CoreTech. Pre-con next week.
			CM	2	8/3/2017	3/8/2020	\$ 870,610.41	DCA	Working with Contractor on schedule, submittals, responding to RFIs, and assisting in the negotiations of PCO costs. Fee proposal for CM services for Phase 2 submitted and accepted by GWA. Change Order to add CM for Phase 2 prepared for GWA. CO pending GWA execution.
4	RT2 Agat War in the Pacific Sewer Line Rehabilitation and Replacement	Brown & Caldwell	Design	3	11/17/2015	3/30/2017 for Design requirements	\$ 316,681.00	SSFM	Providing designer support during construction. Final invoice submitted to GWA on 05/01/2020. Project is completed.
			Construction	3	8/31/2017	10/1/2018 (Contractor in LD period)	\$4,688,042.38	ProPacific	FOIA request. Currently gathering correspondence records and contract documents. PPBC needs to submit final CCTV and paperwork for review and acceptance of pipe between SMH 2 through 10. All work now completed. PPBC submitted a request for CO to resolve excess excavated materials, time extension, LD time, and other costs to BC. CO sent to GWA but prior to executing, the matter of LD assessment must be resolved. BC is working on this now. The final payment request is to accompany the change order to reconcile contract obligation amount. BC requesting final invoice from PPBC together with final As-Built. BC working with GWA on assessment of LDs and Special Damages. Working on final payment quantities. Change Order #5 revised to include LDs and sent to PBC for signature. Pending signature by PPBC. GWA preparing a 5427 determination. PPBC signed CO#5. Final Payment Request from contractor and sent to GWA for payment.
			Construction (Phase 2)						B&C working with HDR to prepare bid documents for RT1 Asan-Adelup-Agana PH2.
			CM	3	9/19/2017	10/1/2018	\$ 749,950.00	TG Engineers	Assembling close-out documentation. As-built drawings received from TG and forwarded to GWA.

GWA Work Session - February 16, 2021 - DIVISION REPORTS

Project	Project Description	Project Manager	Phase		Start Date (NTP Issued)	Anticipated Completion Date	Contract Amount	Contractor	Status as of 02/05/2021
7	Groundwater Wells Rehabilitation (F-3, A-2, A-7, A-12, D-5)	Brown & Caldwell	Design	6	5/27/2016	2/28/2018 (for design only)	\$ 1,758,247.00	AECOM	Bid and Construction Support Services on hold until construction IFB is issued.
			Construction	4					No firm submitted a bid proposal. GWA Project Engineer to reassess and make additional changes to the bid package (ongoing). At this time, no response from potential firms (Well Drillers). Only two well drillers on Guam.
			CM	4			\$ 640,248.00	DCA	DCA was awarded the contract but GWA has not issued NTP until construction is approved.
8	Tumon Sewer Hot Spots	Brown & Caldwell	Design	7	6/24/2016	10/30/2017 for design only	\$ 572,089.00	TG Engineers	TGE to provide engineering services during bid process.
			Construction	See Project 15	12/1/2018	12/31/2019	See Project 15	See Project 15	See Project 15
			CM	See Project	5/31/2019	5/31/2020	See Project 15	Am Orient	Procurement 100%: Contract fully executed. CM services to be on hold until bidding restarted.
12	RT4 Relief Sewer Line Rehabilitation and Replacement	Brown & Caldwell	Design	9	3/1/2016	4/22/2017	\$ 794,000.00	AECOM	AECOM concluded that the intertie pipe that was installed with deviations (not first approved) from the design plans does not have a significant effect on the performance of either sewer line. GWA asked for concurrence of acceptance. GWA accepted as constructed.
			Construction	5	9/3/2018	6/30/2020	\$ 3,998,688.00	Insituform	CCU approved Change Order #5 to increase contingency authorization. Submitted Change Order #6 submitted to GWA for approval. Decision by GWA regarding LDs needed to process final payment. Pending response from Barbara Cruz. GWA added time to contract. Final LDs based on 2 days. Pending Final Payment request
				6	9/25/2018	6/30/2020	\$ 3,407,848.00	ProPacific	PPBC completed all work under this contract. Final inspection on 10/19. Substantial Completion was on 10/09/2020. Final completion was on 10/13/2020. Pending Final Payment request.
			CM	6	11/15/2018	12/31/2019	\$ 702,678.13	EMPSCO	Consultant assembling close-out documentation.

GWA Work Session - February 16, 2021 - DIVISION REPORTS

Project	Project Description	Project Manager	Phase		Start Date (NTP Issued)	Anticipated Completion Date	Contract Amount	Contractor	Status as of 02/05/2021
14	Southern SSES Sewer Rehabilitation (Baza Gardens- Talofofo)	Brown & Caldwell	Design				The design was previously completed under bond funding.		
			Construction	8	8/2/2016	Due to issue related to Santa Rita sewer project completion under analysis.	\$ 1,189,815.00	ProPacific	<p>Santa Rita</p> <ul style="list-style-type: none"> • Permits/Easement <ul style="list-style-type: none"> - SHPO: Submitted AMDP to SHPO on 12/17/2020. Still waiting for response. SHPO operating at 50% capacity. Recent news mentioned that GovGuam is allowed to fully operate. - CatEx to be completed after approval. - Easement: Right of Entry signed by property owner. - : GWA working with legislature to complete easement. BC providing assistance as requested. • Construction <ul style="list-style-type: none"> - Fusible PVC arrived on-island. - Wetwell and pumps being fabricated by manufacturer. - Continuing to receive product submittals. - Working with GPA to establish 3-phase power connection to lift station. • Design <ul style="list-style-type: none"> - Conditionally approved. - PPBC started DPW building permit. <p><u>Baza Gardens/Talofofo</u></p> <ul style="list-style-type: none"> • Working on EMPSCO's final payment and issuing a final completion. • EMPSCO beginning closeout.
			CM	8	7/29/2016	5/28/2017	\$ 425,756.09	EMPSCO	Closed out. Does USEPA need anything?
15	Tamuning Sewer Hot Spots	G. Gattoc	Design	10	9/9/2016	10/31/2017 (for design only)	\$ 663,629.00	TG Engineers	TGE to provide engineering support services during bid process and construction.
			Construction	9	1/30/2020	12/31/2020	\$ 1,093,955.87	Ian Corporation	<ul style="list-style-type: none"> • Contractor picked up Building Permit from DPW on 01/07/2021. • Contractor submitted revised Construction Schedule for review and approval. Contractor to submit extension request letter. • Kick-off/pre-mobilization meeting on 01/13/2021. • Contractor to begin sending out public notices and installation of construction signage immediately. Construction to commence on 01/18/2021. • Contractor has acquired clearance with DPHSS for construction operations.
			CM	9	3/31/2019	3/31/2020	\$ 531,000.75	Am Orient	CM acknowledged Notice to Proceed (NTP).

GWA Work Session - February 16, 2021 - DIVISION REPORTS

Project	Project Description	Project Manager	Phase		Start Date (NTP Issued)	Anticipated Completion Date	Contract Amount	Contractor	Status as of 02/05/2021
16	Talofofo Sewer Pump Stations (4 stations)	J. Miller	Design (for Talofofo and Chalan Pago PS)	11	8/17/2016	11/30/2017	\$ 493,818.86	EMPSCO	<ul style="list-style-type: none"> Cost Estimates are being evaluated for the construction IFB. Reviewing sewer connection laws and regulations for establishing updated expected flows. <p>Invoice received 06/08/2020. Need to finalize cost estimate prior to paying for final documents.</p>
			Construction	10	12/27/2018	5/29/2020	\$ 2,411,418.00	Giant Const.	<ul style="list-style-type: none"> Latest letter from GWA extends project completion date to 08/31/2020. Pending response from Giant. Giant working on punch list items. Major items are autodialer alert system and generator connection cords. Started stations 12/24/2020. Giant monitoring operations until they are ready to transfer it to GWA. Continually updating list of additional project delays since GWA's 08/31/2020 letter. <p>No new invoices received.</p>
			CM		12/1/2018	12/31/2019			GWA Engineering will manage construction management tasks.
18	Water Hydraulic Model (SCADA ready instruments to update Model)	Barbara Cruz J. Mendiola/G. Yeoh	Design	12	8/3/2016	3/15/2017	\$ 523,268.00	GHD	Design complete.
			Construction (Phase I)	12	8/3/2016	6/30/2020	\$ 4,532,000.00	Sumitomo	Ongoing excavation on existing outlet line at Kaiser for new meter connection. PRV 80 installed at Kaiser. PRV 76 & 79 vaults in progress. First COP sent to accounting for processing on 01/06/2021. SMCC in process of requesting electrical services with GPA. Pending CO no. 2, in discussion with SMCC.
			CM		6/15/2019	6/30/2020			
23	Project Advertisement	Engineering/Procurement	MISC	1			\$ 25,172.50	PDN/Post	On-going
24	Dungca Beach Sewer Improvements	GWA CIP Engr	Design						<ul style="list-style-type: none"> GWA received revised cost fee proposal from designer. This will be finalized this week. GWA submitted a letter from USEPA to SHPO re: consultation under Section 106 dated 12/08.
25	Hagatna Sewer Pump Station Force Main	GWA CIP Engr	Design						<ul style="list-style-type: none"> A/E Service Procurement. Initial inspection with Scott Wenger, GHD, conducted on Friday, 10/16/2020. GHD to provide fee proposal 11/17/2020. NEPA Documents are still in progress. SHPO requires an Archaeological Monitoring Plan. GHD working on fee reduction.
26	Fujita Sewer Pump Station Force Main	GWA CIP Engr	Design						<ul style="list-style-type: none"> A/E (AECOM) working on design cost fee proposal. Compiling existing as-builts/design plans/studies/boundary information to establish scope of work and design fees for A/E.
27	Well Rehab A-28, M-14, D-15 & F-7	GWA CIP Engr	Design						Draft scope of work with Chief Engineer for review.
							\$ 66,381,861.14		



Financial Statement Overview January 2021

There were 270 COVID-19 positive tests and 7 COVID-related fatalities reported during the month of January. Executive Order 2021-03 extended the public health emergency from January 29, 2021 to March 1, 2021.

In early November 2020, the Governor introduced the *Strive for Five* campaign to bring down our CAR (COVID Area Risk) score to 5 or less in hopes of moving the community towards some semblance of normalcy. On January 31, 2020, the island's CAR score was at .2 and mass testing was available to the public at no charge at various locations throughout the island. Executive Order 2021-01 placed Guam in PCOR2 effective January 18, 2021.

By the end of January, Guam had received 34,300 vaccines and 28,183 or 82.17% were administered with 6,856 persons receiving both shots. An additional 17,000 vaccines were expected in the month of February. The National Guard was engaged to administer vaccines at the UOG fieldhouse as vaccines became more widely available through certain clinics and pharmacies.

About a third of customers continue to make payments in person. Using social media, GWA continues to encourage customers to conduct business online or via the phone. As part of this effort, GWA joined the *Going Online Together* campaign in June 2020 with several other organizations. Additionally, CARES funding was approved to customize an automated customer service online support portal which will also include requests for permitting and submissions related to backflow testing on the GWA website.

On April 28th, CCU Resolution 24-FY2020 granted the lifting of credit card limits on payments for non-residential accounts. Approximately 46% of payments made in FY21 were made with credit cards. Below is a summary of payments made and related fees exceeding the limit.

Month	Customer Count	Amount Paid	Fees	% of Fees to Payments
May – September 2020	140	\$241,335	\$4,952	2.05%
October – December 2020	100	\$194,764	\$3,916	2.01%
January 2021	27	\$48,491	\$975	2.01%

Year to Date water consumption is 11% lower than last year while daily water consumption for the period is down 12% from 16,345 to 14,553 Kgals. Although residential consumption is up 7% for water and 47% for wastewater, reductions in commercial and hotel of 41% in water demand and 41% in wastewater flows offset those increases.

For the month of January, water consumption was down 6% and wastewater consumption was up 1%. While daily water consumption for residents increased by 1%, overall daily water consumption was down by 14%.

Schools welcomed back students on January 19, 2021 with parents able to choose face to face, online or hard copy instruction; we hope to see GDOE consumption increase as more activities are held at the schools. While Government of Guam has reopened to the public, adopting procedures to protect staff and customers, it's unclear when UOG and GCC might hold in person classes. See Schedule K for Water Demand for FY2015 to FY2021.



In late December, the second United States Corona Relief Package was signed into law. Funding for rental and utility assistance as well as direct funding for water utilities was included. Stimulus checks will be issued in February. The Guam Housing Corporation will be administering the rental and utility assistance program as we await information on the direct funding program. Unemployment assistance has been extended and the Department of Labor is working to include reduced hours in the extension of the unemployment program. The deadline for the expenditure of CARES funding was also extended for a year however BBMR has captured any unused funds and balances are no longer available.

In January 2019, the Philippines was removed from the H-2B nonimmigrant program. For 2021, the acting secretary of homeland security and the secretary of state agreed to add the Philippines to the list of countries eligible to participate in the H-2B program. Despite the prior ban, military project contractors were still allowed to bring in workers from the Philippines. It's unclear if this action will impact nonmilitary construction activity.

The Guam Visitors Bureau and the Guam Airport Authority had previously announced that COVID-19 testing for arriving passengers may begin, which could lead to changes in the mandatory 14-day quarantine. Additionally, negative coronavirus test results from Korea, Japan, and Taiwan could soon be accepted in time for the targeted reopening of tourism in the first quarter of CY2021. However, GVB suggests arrivals are not likely to pick up until the third or fourth quarter of FY2021 and a full tourism recovery may not happen until 2024. The Guam Hotel & Restaurant Association has noted that about 3,000 military reside in Guam hotels.

GVB is exploring the possibility of a travel bubble arrangement with Taiwan. The Governor will be visiting Taiwan to help boost this plan in the upcoming months. Meanwhile, most airlines have suspended flights to Guam.

As the recovery of Guam's economy is slower than expected, revenues are coming in below projections. A cost containment plan is in place in response to the revenue reductions. While sufficient cash reserves are in place, management will continue to assess the situation and make any course corrections required to ensure continuity of services to our customers while keeping the safety of our staff the highest priority.

GWA has consulted with bond counsel and the auditors to determine if a Rate Stabilization Fund can be stood up to assist with debt service coverage. A resolution is included in this month's packet for CCU consideration.

The studies that will be presented to the PUC as part of the stipulated agreement are progressing. A presentation to the CCU will be scheduled in the upcoming weeks.

The system upgrade is progressing, with the cutover scheduled for early May. A number of paper based processes will be automated and we hope to see a number of efficiencies with the implantation of the new system.

Balance Sheet

- Total Assets & Deferred Outflows of Resources of \$1.129B in September 2020 decreased by \$6.01M or 1% to \$1.123B in January 2021. Current Assets decreased by \$3.8M primarily due to reductions in federal receivables and unrestricted cash offset by increases in trade accounts receivable. Property, Plant and Equipment increased by \$10.4M due to increases in property net of accumulated depreciation and construction in progress. Other Noncurrent Assets decreased by \$12M primarily due to reductions in restricted cash. Cash on hand was calculated at 259 days. Schedule G contains a schedule of restricted and unrestricted cash and investments.



- Liabilities & Deferred Inflow of Resources of \$869.9M in September 2020 decreased by \$13.7M or 2% to \$856.3M in January 2021 primarily due to reductions in contractors payable offset by increases in interest payable.
- Accounts Receivable days were 50 in January 2021 and December 2020 and Accounts Payable days were 32 in January 2021 compared to 33 in December 2020.

Statement of Operations and Retained Earnings

- Total Operating Revenues for January 2021 of \$8.5M were 10% or \$966K less than budget and 6% or \$532K less than January 2020 due to the impact of the COVID-19 public health emergency and offset by the 5% increases effective in March and October 2020.
- Year to Date Operating Revenues as of January 2021 of \$32.5M were 14% or \$5.4M below budget of \$37.9M and \$4.7M or 13% below Year to Date Operating Revenues at January 2020 of \$37.2M.
- Below is the percentage of operating revenues (water and wastewater) contributed by GWA's customer classes for FY2021 and FY2020 Year to Date as of January:

Customer Class	FY2020	FY2021
○ Residential	39.97%	51.25%
○ Commercial	20.47%	20.01%
○ Hotel	25.47%	12.53%
○ Government of Guam	8.92%	9.77%
○ Federal Government	4.71%	5.94%
○ Agriculture, Golf Course, Irrigation	.46%	.50%

- Total Operating Expenses for January 2021 of \$6.9M were \$603K or 8% lower than budget. Total Operating Expenses for January 2021 were 9% or \$693K less than January 2020 with decreases in most expense categories.
- Year to Date Operating Expenses at January 2021 of \$27.4M were \$2.5M or 8% lower than budget. Year to Date Operating Expenses at January 2021 were \$2.3M or 8% less than last year's \$29.6M.
- Earnings from Operations for January 2021 of \$1.6M were 18% or \$363K less than budget and 11% or \$161K more than January 2020. Change in Net Assets for January 2021 of \$5.2M were \$2.4M more than the \$2.8M budget mainly due to \$2.7M more in Grants and \$5.2M more than January 2020 due to \$5.7M more in grants.
- Year to Date Earnings from Operations as of January 2021 of \$5.2M were 36% or \$2.9M less than budget and 32% or \$2.4M less than YTD Earnings as of January 2020. Year to Date Change in Net Assets as of January 2021 of \$7.7M were \$3.5M or 31% less than budget. Year to Date Change in Net Assets as of January 2021 were \$1.9M or 20% less than YTD as of January 2020 with decreases of \$3M in Non-Operating Revenues net of Expenses offset by \$3.5M more in grants.

**Key Financial Indicators**

Indicator	Target	December 2020	January 2021
DSC YTD			
• Per Section 6.12 of Indenture	1.25	1.32	1.30
• Per PUC / CCU	1.40	1.32	1.30
Days – Cash on Hand	120 days	277 days	259 days
Collection Ratio			
• Month to Date	99%	101%*	91%
• Year to Date	99%	96%*	95%
Days Billed	30 days	28 days	32 days
Account Receivable Days	30 days	50 days	50 days
Account Payable Days	45 days	33 days	32 days
Employee Count	400 FTE	373 FTE	373 FTE
Water Demand			
• Month to Date	478,754	405,540	471,523
• Year to Date	1,915,017	1,289,392	1,760,915
Wastewater Flow			
• Month to Date	356,472	283,087	328,313
• Year to Date	1,425,889	916,714	1,245,027
Water Customers	42,839	43,021	43,086
Wastewater Customers	29,805	29,988	29,765

*Updated from December reporting

**GUAM WATERWORKS AUTHORITY
JANUARY 31, 2021
FINANCIAL AND RELATED REPORTS
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GUAM WATERWORKS AUTHORITY
Balance Sheet
January 31, 2021

SCHEDULE A

	Unaudited January 31, 2021	Unaudited September 30, 2020	Increase (Decrease)
ASSETS AND DEFERRED OUTFLOWS of RESOURCES			
<u>Current Assets</u>			
Cash			
Unrestricted (Schedule G)	39,090,625	42,479,412	(3,388,787)
Restricted Funds (Schedule G)	29,545,320	30,072,502	(527,182)
Accounts Receivable Trade, Net of Allowance for Doubtful Receivables of \$8,671,542 at Jan 31, 2021 and \$8,671,857 at Sep 30, 2020	13,517,954	12,562,276	955,678
Federal Receivable	7,404,096	8,168,373	(764,278)
Other Receivable	887,100	901,928	(14,829)
Materials & Supplies Inventory, Net of Allowance for Obsolescence of \$64,131 at Jan 31, 2021 and \$64,131 at Sep 30, 2020	4,752,627	4,804,463	(51,835)
Total Current Assets	95,197,721	98,988,953	(3,791,232)
<u>Property, Plant and Equipment</u>			
Utility plant in service			
Water system	379,128,412	378,487,752	640,660
Wastewater system	492,117,959	480,533,485	11,584,474
Non-utility property	25,790,721	25,752,939	37,782
Total property	897,037,092	884,774,176	12,262,917
Less: Accumulated Depreciation	(351,619,794)	(343,114,822)	(8,504,971)
Land	5,240,187	5,240,187	-
Construction Work in Progress	152,017,714	145,342,590	6,675,124
Property, Plant and Equipment, net	702,675,200	692,242,131	10,433,069
<u>Other noncurrent assets and deferred charges</u>			
Restricted cash (Schedule G)	208,141,934	219,203,039	(11,061,105)
Investments (Schedule G)	66,920,975	66,616,997	303,978
Other Prepaid Expenses	1,043,801	2,615,782	(1,571,980)
Regulatory Assets	793,103	430,962	362,141
Total other noncurrent assets and deferred charges	276,899,813	288,866,779	(11,966,966)
Total Assets	1,074,772,735	1,080,097,863	(5,325,128)
Deferred outflows of resources			
Debt defeasance due to bond refunding	32,663,413	33,351,801	(688,388)
Deferred outflows from pension	9,057,499	9,057,499	-
Deferred outflows from OPEB	6,982,196	6,982,196	-
Total Assets and Deferred Outflows of Resources	1,123,475,843	1,129,489,360	(6,013,516)
LIABILITIES, DEFERRED INFLOWS of RESOURCES AND NET ASSETS			
<u>Current Liabilities</u>			
Current maturities of long-term debt			
Series 2013 Revenue Bond	2,840,000	2,695,000	145,000
Series 2014 Refunding Bond	530,000	3,760,000	(3,230,000)
Series 2016 Revenue Bond	3,860,000	420,000	3,440,000
Series 2017 Refunding Bond	2,040,000	-	2,040,000
Accounts Payable -Trade	2,578,207	2,701,944	(123,737)
Accrued and Other Liabilities	979,722	1,238,863	(259,140)
Interest Payable	2,480,584	6,304,598	(3,824,014)
Accrued Payroll and Employee Benefits	1,053,154	354,780	698,375
Current portion of employee annual leave	521,113	616,114	(95,001)
Contractors' Payable	13,601,219	23,311,295	(9,710,076)
Customer and Other Deposits	2,172,690	2,199,462	(26,772)
Total Current Liabilities	32,656,689	43,602,055	(10,945,366)
<u>Long Term Debt, less current maturities</u>			
Series 2013 Revenue Bond	24,500,000	24,645,000	(145,000)
Series 2014 Refunding Bond	64,610,000	61,380,000	3,230,000
Series 2016 Revenue Bond	139,030,000	142,470,000	(3,440,000)
Series 2017 Refunding Bond	105,325,000	107,365,000	(2,040,000)
Series 2020A Revenue Bond	134,000,000	134,000,000	-
Series 2020B Refunding Bond	166,075,000	166,075,000	-
Unamortized Bond Premium/Discount	41,890,127	42,515,523	(625,396)
Net pension liability	49,593,171	49,593,171	-
Net OPEB obligation	62,656,405	62,656,405	-
Employee Annual Leave, Less Current Portion	1,274,196	1,179,195	95,001
Employee Sick Leave	1,226,702	1,226,702	-
Total Liabilities	822,837,290	836,708,051	(13,870,761)
Deferred inflows of resources:			
Contribution in Aid of Construction	225,498	67,608	157,890
Deferred inflows from pension	1,444,744	1,444,744	-
Deferred inflows from OPEB	31,758,062	31,758,062	-
Total Liabilities and Deferred Inflows of Resources	856,265,594	869,978,465	(13,712,871)
Net Assets	267,210,249	259,510,894	7,699,355
Total Liabilities, Deferred Inflows of Resources and Net Assets	1,123,475,843	1,129,489,360	(6,013,516)

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings
Comparative Budget vs. Actual for the period ending January 31, 2021

SCHEDULE B

	Month to Date		Variance
	Actual (Unaudited)	Budget*	Favorable /
	January-21	January-21	(Unfavorable)
OPERATING REVENUES			
Water Revenues	5,664,142	5,863,373	(199,231)
Wastewater Revenues	2,488,113	3,226,426	(738,313)
Legislative Surcharge	249,110	274,214	(25,104)
Other Revenues	26,428	35,895	(9,467)
System Development Charge	83,152	77,442	5,710
Total Operating Revenues	8,510,943	9,477,350	(966,406)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	512,582	718,609	206,027
Power Purchases	906,236	1,082,131	175,895
Total Utility Costs	1,418,818	1,800,740	381,922
Salaries and Wages	1,558,189	1,769,221	211,032
Pension and Benefits	586,829	606,991	20,163
Total Salaries and Benefits	2,145,018	2,376,212	231,194
Capitalized Labor and Benefits	(311,767)	(308,333)	3,434
Net Salaries and Benefits	1,833,251	2,067,879	234,628
Administrative and General Expenses			
Sludge removal	143,606	143,907	301
Chemicals	103,726	144,696	40,969
Materials & Supplies	116,417	171,435	55,019
Transportation	40,737	41,298	560
Communications	11,934	14,528	2,594
Claims	24,951	25,681	730
Insurance	78,330	78,685	355
Training & Travel	1,310	5,321	4,011
Advertising	5,545	11,346	5,801
Miscellaneous	113,456	113,496	40
Regulatory Expense	15,543	20,055	4,511
Bad Debts Provision	168,014	168,113	99
Total Administrative and General Expense	823,571	938,561	114,990
Depreciation Expense	2,133,381	1,855,919	(277,461)
Contractual Expense			
Audit & Computer Maintenance	142,550	142,904	354
Building rental	37,471	41,702	4,231
Equipment rental	25,977	37,524	11,547
Legal	-	563	563
Laboratory	28,474	35,032	6,558
Other	162,637	267,774	105,138
Total Contractual Expense	397,109	525,500	128,391
Retiree Supp. Annuities and health care costs	210,987	233,386	22,398
Contribution to Government of Guam	50,333	48,546	(1,787)
Total Retiree Benefits	261,321	281,932	20,611
Total Operating Expenses	6,867,450	7,470,530	603,081
Earnings (Loss) from Operations	1,643,494	2,006,820	(363,326)
Interest Income - 2010/13/14/16/17/20 Series Bond	2,382	128,299	(125,917)
Interest Income - Other Funds	721	29,550	(28,829)
Interest Income - SDC	1,952	2,488	(536)
Interest Expense - 2010/13/14/16/17/20 Series Bond	(2,480,584)	(2,638,329)	157,746
Federal Expenditures	(9,710)	-	(9,710)
Amortization of Discount, Premium and Issuance Costs	156,349	(23,078)	179,427
Defeasance due to bond refunding	(172,097)	(22,439)	(149,658)
Prior Year Adjustment	(20,889)	-	(20,889)
Total non-operating revenues (expenses)	(2,521,875)	(2,523,508)	1,633
Net Income (Loss) before capital contributions	(878,381)	(516,688)	(361,693)
Capital Contributions			
Grants from US Government	6,035,585	3,311,071	2,724,514
Grants from GovGuam & Others	-	-	-
Total Capital Contributions	6,035,585	3,311,071	2,724,514
Change in Net Assets	5,157,204	2,794,383	2,362,821
Debt Service Calculation			
Earnings From Operations	1,643,494	2,006,820	
System Development Charge	(83,152)	(77,442)	
Retiree COLA	50,333	48,546	
Interest/Investment Income	721	29,550	
Depreciation	2,133,381	1,855,919	
Balance Available for Debt Service per Section 6.12	3,744,777	3,863,393	
Debt Service			
Principal	772,500	772,500	
Interest	1,847,251	1,996,663	
Total	2,619,751	2,769,163	
Debt Service Coverage (1.25X) - per Section 6.12 (Indenture)	1.43	1.40	
Debt Service Coverage (1.40X) inclusive of reserves (PUC)	1.43	1.40	

*Adjusted budget

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings
Comparative for the period ending January 31, 2020 and 2021

SCHEDULE C

	Month to Date Actual (Unaudited) January-21	Actual (Unaudited) January-20	Variance Increase / (Decrease)
OPERATING REVENUES			
Water Revenues	5,664,142	5,677,227	(13,085)
Wastewater Revenues	2,488,113	3,038,548	(550,436)
Legislative Surcharge	249,110	280,815	(31,705)
Other Revenues	26,428	25,810	617
System Development Charge	83,152	20,849	62,303
Total Operating Revenues	8,510,943	9,043,249	(532,306)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	512,582	664,907	(152,325)
Power Purchases	906,236	1,348,139	(441,903)
Total Utility Costs	1,418,818	2,013,046	(594,228)
Salaries and Wages	1,558,189	1,734,611	(176,422)
Pension and Benefits	586,829	553,171	33,658
Total Salaries and Benefits	2,145,018	2,287,782	(142,764)
Capitalized Labor and Benefits	(311,767)	(311,461)	(306)
Net Salaries and Benefits	1,833,251	1,976,321	(143,070)
Administrative and General Expenses			
Sludge removal	143,606	125,324	18,282
Chemicals	103,726	182,191	(78,465)
Materials & Supplies	116,417	191,862	(75,446)
Transportation	40,737	50,688	(9,951)
Communications	11,934	16,727	(4,793)
Claims	24,951	10,052	14,899
Insurance	78,330	77,860	470
Training & Travel	1,310	-	1,310
Advertising	5,545	1,829	3,716
Miscellaneous	113,456	113,950	(494)
Regulatory Expense	15,543	41,129	(25,586)
Bad Debts Provision	168,014	179,932	(11,918)
Total Administrative and General Expense	823,571	991,547	(167,976)
Depreciation Expense	2,133,381	1,993,832	139,549
Contractual Expense			
Audit & Computer Maintenance	142,550	44,709	97,841
Building rental	37,471	35,141	2,331
Equipment rental	25,977	37,299	(11,322)
Laboratory	28,474	16,976	11,498
Other	162,637	214,442	(51,805)
Total Contractual Expense	397,109	348,566	48,542
Retiree Supp. Annuities and health care costs	210,987	187,512	23,475
Contribution to Government of Guam	50,333	50,334	(1)
Total Retiree Benefits	261,321	237,846	23,475
Total Operating Expenses	6,867,450	7,561,157	(693,708)
Earnings (Loss) from Operations	1,643,494	1,482,092	161,402
Interest Income - 2010/13/14/16/17/20 Series Bond	2,382	175,824	(173,442)
Interest Income - Other Funds	721	44,294	(43,573)
Interest Income - SDC	1,952	10,563	(8,611)
Interest Expense - 2010/13/14/16/17/20 Series Bond	(2,480,584)	(2,117,099)	(363,485)
Interest Expense - ST BOG	-	(7,577)	7,577
Federal Expenditures	(9,710)	-	(9,710)
Loss on Asset Disposal	-	(60,489)	60,489
Amortization of Discount, Premium and Issuance Costs	156,349	119,970	36,379
Defeasance due to bond refunding	(172,097)	(68,976)	(103,121)
Prior Year Adjustment	(20,889)	36,592	(57,481)
Total non-operating revenues (expenses)	(2,521,875)	(1,866,898)	(654,977)
Net Income (Loss) before capital contributions	(878,381)	(384,806)	(493,575)
Capital Contributions			
Grants from US Government	6,035,585	313,163	5,722,423
Grants from GovGuam & Others	-	-	-
Total Capital Contributions	6,035,585	313,163	5,722,423
Change in Net Assets	5,157,204	(71,644)	5,228,848
Debt Service Calculation			
Earnings From Operations	1,643,494	1,482,092	
System Development Charge	(83,152)	(20,849)	
Retiree COLA	50,333	50,334	
Interest/Investment Income	721	44,294	
Depreciation	2,133,381	1,993,832	
Balance Available for Debt Service per Section 6.12	3,744,777	3,549,703	
Working Capital Reserve Available for Debt Service	-	968,394	
Balance Available for Debt Service inclusive of reserves	3,744,777	4,518,097	
Debt Service			
Principal	772,500	730,833	
Interest	1,847,251	2,117,099	
Total	2,619,751	2,847,932	
Debt Service Coverage (1.25X) - per Section 6.12 (Indenture)	1.43	1.25	
Debt Service Coverage (1.40X) (PUC)	1.43		
Debt Service Coverage (1.75X) inclusive of reserves (PUC)		1.59	

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings
Comparative Budget vs. Actual for the period ending January 31, 2021

SCHEDULE D

	Year to Date Actual (Unaudited) January-21	Budget* January-21	Variance Favorable / (Unfavorable)
OPERATING REVENUES			
Water Revenues	21,231,598	23,453,493	(2,221,895)
Wastewater Revenues	10,008,786	12,905,703	(2,896,917)
Legislative Surcharge	943,592	1,096,857	(153,264)
Other Revenues	115,522	143,579	(28,057)
System Development Charge	242,469	309,768	(67,299)
Total Operating Revenues	32,541,966	37,909,399	(5,367,433)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	2,110,145	2,874,435	764,290
Power Purchases	3,890,187	4,328,526	438,339
Total Utility Costs	6,000,332	7,202,961	1,202,629
Salaries and Wages	6,368,100	7,076,883	708,783
Pension and Benefits	2,407,769	2,427,965	20,196
Total Salaries and Benefits	8,775,869	9,504,848	728,979
Capitalized Labor and Benefits	(1,227,930)	(1,233,333)	(5,403)
Net Salaries and Benefits	7,547,939	8,271,515	723,576
Administrative and General Expenses			
Sludge removal	509,891	527,628	17,738
Chemicals	539,430	769,782	230,352
Materials & Supplies	375,745	631,741	255,996
Transportation	166,070	166,191	121
Communications	53,896	58,113	4,217
Claims	24,951	25,723	772
Insurance	313,322	313,741	420
Training & Travel	9,067	117,283	108,217
Advertising	10,751	42,184	31,433
Miscellaneous	360,770	360,785	14
Regulatory Expense	62,479	96,619	34,140
Bad Debts Provision	643,680	644,453	773
Total Administrative and General Expense	3,070,051	3,754,244	684,192
Depreciation Expense	8,504,971	7,423,677	(1,081,294)
Contractual Expense			
Audit & Computer Maintenance	425,307	425,616	309
Building rental	149,885	165,408	15,522
Equipment rental	99,346	296,097	196,751
Legal	-	2,251	2,251
Laboratory	51,051	141,529	90,478
Other	502,097	1,071,098	569,000
Total Contractual Expense	1,227,686	2,101,998	874,312
Retiree Supp. Annuities and health care costs	824,520	933,543	109,022
Contribution to Government of Guam	201,333	194,184	(7,149)
Total Retiree Benefits	1,025,854	1,127,727	101,873
Total Operating Expenses	27,376,833	29,882,121	2,505,288
Earnings (Loss) from Operations	5,165,133	8,027,278	(2,862,145)
Interest Income - 2010/13/14/16/17/20 Series Bond	9,049	513,198	(504,149)
Interest Income - Other Funds	2,617	118,202	(115,585)
Interest Income - SDC	11,149	9,950	1,199
Interest Expense - 2010/13/14/16/17/20 Series Bond	(10,159,502)	(10,553,317)	393,815
Federal Expenditures	(137,522)	-	(137,522)
Amortization of Discount, Premium and Issuance Costs	623,646	(92,310)	715,956
Defeasance due to bond refunding	(688,388)	(89,754)	(598,634)
Prior Year Adjustment	(71,472)	-	(71,472)
Total non-operating revenues (expenses)	(10,410,423)	(10,094,032)	(316,392)
Net Income (Loss) before capital contributions	(5,245,290)	(2,066,754)	(3,178,537)
Capital Contributions			
Grants from US Government	12,748,772	13,244,286	(495,514)
Grants from GovGuam & Others	195,873	-	195,873
Total Capital Contributions	12,944,645	13,244,286	(299,641)
Change in Net Assets	7,699,355	11,177,532	(3,478,177)
Debt Service Calculation			
Earnings From Operations	5,165,133	8,027,278	
System Development Charge	(242,469)	(309,768)	
Retiree COLA	201,333	194,184	
Interest/Investment Income	2,617	118,202	
Depreciation	8,504,971	7,423,677	
Balance Available for Debt Service per Section 6.12	13,631,586	15,453,573	
Debt Service			
Principal	3,090,000	3,090,000	
Interest	7,389,006	7,986,650	
Total	10,479,006	11,076,650	
Debt Service Coverage (1.25X) - per Section 6.12 (Indenture)	1.30	1.40	
Debt Service Coverage (1.40X) inclusive of reserves (PUC)	1.30	1.40	

*Adjusted budget

GUAM WATERWORKS AUTHORITY
Statement of Operations and Retained Earnings
Comparative for the period ending January 31, 2020 and 2021

SCHEDULE E

	Year to Date Actual (Unaudited) January-21	Actual (Unaudited) January-20	Variance Increase / (Decrease)
OPERATING REVENUES			
Water Revenues	21,231,598	22,719,472	(1,487,874)
Wastewater Revenues	10,008,786	13,076,153	(3,067,368)
Legislative Surcharge	943,592	1,167,793	(224,201)
Other Revenues	115,522	120,925	(5,404)
System Development Charge	242,469	132,286	110,183
Total Operating Revenues	32,541,966	37,216,630	(4,674,663)
OPERATING AND MAINTENANCE EXPENSES			
Water Purchases	2,110,145	2,374,676	(264,531)
Power Purchases	3,890,187	5,392,557	(1,502,371)
Total Utility Costs	6,000,332	7,767,233	(1,766,901)
Salaries and Wages	6,368,100	6,608,807	(240,707)
Pension and Benefits	2,407,769	2,133,977	273,792
Total Salaries and Benefits	8,775,869	8,742,784	33,085
Capitalized Labor and Benefits	(1,227,930)	(1,150,124)	(77,807)
Net Salaries and Benefits	7,547,939	7,592,660	(44,721)
Administrative and General Expenses			
Sludge removal	509,891	501,297	8,594
Chemicals	539,430	754,481	(215,051)
Materials & Supplies	375,745	626,899	(251,154)
Transportation	166,070	182,960	(16,890)
Communications	53,896	44,598	9,298
Claims	24,951	31,693	(6,742)
Insurance	313,322	311,666	1,655
Training & Travel	9,067	59,248	(50,182)
Advertising	10,751	7,100	3,651
Miscellaneous	360,770	365,822	(5,051)
Regulatory Expense	62,479	205,876	(143,397)
Bad Debts Provision	643,680	739,228	(95,549)
Total Administrative and General Expense	3,070,051	3,830,869	(760,818)
Depreciation Expense	8,504,971	7,993,697	511,274
Contractual Expense			
Audit & Computer Maintenance	425,307	144,435	280,872
Building rental	149,885	140,563	9,322
Equipment rental	99,346	326,013	(226,668)
Legal	-	18,082	(18,082)
Laboratory	51,051	94,029	(42,978)
Other	502,097	770,507	(268,409)
Total Contractual Expense	1,227,686	1,493,629	(265,943)
Retiree Supp. Annuities and health care costs	824,520	759,083	65,438
Contribution to Government of Guam	201,333	201,336	(3)
Total Retiree Benefits	1,025,854	960,419	65,435
Total Operating Expenses	27,376,833	29,638,507	(2,261,674)
Earnings (Loss) from Operations	5,165,133	7,578,122	(2,412,989)
Interest Income - 2010/13/14/16/17/20 Series Bond	9,049	763,333	(754,285)
Interest Income - Other Funds	2,617	202,028	(199,411)
Interest Income - SDC	11,149	48,010	(36,862)
Interest Expense - 2010/13/14/16/17/20 Series Bond	(10,159,502)	(8,468,396)	(1,691,106)
Interest Expense - ST BOG	-	(26,274)	26,274
Federal Expenditures	(137,522)	-	(137,522)
Loss on Asset Disposal	-	(102,757)	102,757
Amortization of Discount, Premium and Issuance Costs	623,646	479,879	143,767
Defeasance due to bond refunding	(688,388)	(275,902)	(412,486)
Prior Year Adjustment	(71,472)	(28,268)	(43,203)
Total non-operating revenues (expenses)	(10,410,423)	(7,408,347)	(3,002,077)
Net Income (Loss) before capital contributions	(5,245,290)	169,776	(5,415,066)
Capital Contributions			
Grants from US Government	12,748,772	9,399,767	3,349,005
Grants from GovGuam & Others	195,873	-	195,873
Total Capital Contributions	12,944,645	9,399,767	3,544,879
Change in Net Assets	7,699,355	9,569,542	(1,870,188)
Debt Service Calculation			
Earnings From Operations	5,165,133	7,578,122	
System Development Charge	(242,469)	(132,286)	
Retiree COLA	201,333	201,336	
Interest/Investment Income	2,617	202,028	
Depreciation	8,504,971	7,993,697	
Balance Available for Debt Service per Section 6.12	13,631,586	15,842,897	
Working Capital Reserve Available for Debt Service	-	3,873,576	
Balance Available for Debt Service inclusive of reserves	13,631,586	19,716,474	
Debt Service			
Principal	3,090,000	2,923,333	
Interest	7,389,006	8,468,396	
Total	10,479,006	11,391,729	
Debt Service Coverage (1.25X) - per Section 6.12 (Indenture)	1.30	1.39	
Debt Service Coverage (1.40X) (PUC)	1.30		
Debt Service Coverage (1.75X) inclusive of reserves (PUC)		1.73	

**Guam Waterworks Authority
System Development Charges Project Status
As of January 31, 2021**

SCHEDULE F

Funding Summary

Total available project funds	\$ 13,427,823
Total project expenditures and encumbrances	10,390,541
Total unobligated project funds	<u>\$ 3,037,282</u>

Projects Funded

Project Description	Expenditures	Outstanding Encumbrances	Expenditures and Encumbrances
Agat-Santa Rita Wastewater Treatment Plant Replacement	1,202,006	-	1,202,006
Baza Gardens Wastewater Cross Island Pumping & Conveyance	1,150,881	3,090	1,153,971
Central Guam Reservoirs	274,240	5,800	280,040
Line Replacement Phase IV	-	256,937	256,937
Northern DWWTP	36,302	5,386,297	5,422,599
Northern DWWTP (Land Purchase)	1,000,000	-	1,000,000
Route 4 Relief Sewerline Rehab & Replacement	72,836	521,033	593,869
South Paulino Heights Waterline Upgrade	84,056	4,714	88,770
Talofofo Sewer Improvement	-	241,142	241,142
Umatac Merizo WWTP	-	0.01	0.01
Groundwater Well Production Meter Rep.	-	151,207	151,207
	<u>\$ 3,820,321</u>	<u>\$ 6,570,220</u>	<u>\$ 10,390,541</u>

Future planned projects

	FY2021
Water Wells	1,000,000
Water Dist Sys Pipe Replacement & Upgrades	1,500,000
	<u>\$ 2,500,000</u>

GUAM WATERWORKS AUTHORITY
Restricted and Unrestricted Cash Summary
FY2021

SCHEDULE G

Description	Unaudited January 31, 2021	Unaudited September 30, 2020	Increase (Decrease)
UNRESTRICTED			
Change Fund	2,000	2,000	-
Petty Cash	4,450	4,450	-
BOG Deposit Accounts	3,670,633	5,561,165	(1,890,532)
BOG O & M Reserve	25,259,311	25,689,390	(430,079)
BOG CapEx Fund	10,154,231	11,222,407	(1,068,176)
Sub-total Unrestricted	39,090,625	42,479,412	(3,388,787)
RESTRICTED			
ANZ Bank	1,461	-	1,461
Bank Pacific	19,191	29,243	(10,053)
Bank of Hawaii	343,942	191,250	152,692
Community First FCU	6,833	1,976	4,857
First Hawaiian Bank	27,269	43,451	(16,182)
Bank Pacific Surcharge	1,126,244	420,680	705,563
Bank Pacific Escrow Deposit	805,832	842,331	(36,500)
BOG Customer Refunds	2,078,403	2,063,361	15,042
BOG Emergency Reserve Fund	6,244	6,243	-
BOG Sewer Hookup Revolving Fund	68,456	67,809	647
BOG Operation and Maintenance Fund	3,083,482	3,083,482	-
BOG Revenue Trust	428,345	254,619	173,726
BOG Revenue Trust Fund	6,216,083	7,929,291	(1,713,208)
BOG Capital Improvement Revenue Fund	5,595,787	5,361,363	234,424
	19,807,570	20,295,100	(487,531)
BOG - SDC Deposit	4,933,625	3,527,401	1,406,223
BOG - SDC CDs	4,804,125	6,250,000	(1,445,875)
Total SDC	9,737,750	9,777,401	(39,652)
Total Restricted	29,545,320	30,072,502	(527,182)
Reserve Funds			
BOG Series 2013 Construction Fund	6,755,672	8,647,934	(1,892,263)
BOG Series 2014 Refunding Construction Fund	219,106	219,099	8
BOG Series 2016 Construction Fund	63,672,093	68,518,206	(4,846,112)
BOG Series 2017 Refunding Construction Fund	5,480,840	6,206,732	(725,891)
BOG Series 2020A Construction Fund	123,080,181	-	123,080,181
BOG Series 2020A Capitalized Interest Fund	8,934,041	123,277,054	(114,343,013)
BOG Series 2020A Cost of Issuance Fund	-	12,283,633	(12,283,633)
B20B- BOG COI Fund 184000	-	50,382	(50,382)
Total Restricted - Held by Trustee	208,141,934	219,203,039	(11,061,105)
BOG OMRRRF Fund	17,423,213	17,423,213	-
USB Series 2013 Debt Service Fund	2,108,604	1,810,544	298,060
USB Series 2013 Debt Service Reserve Fund	12,031,688	12,031,688	-
USB Series 2014 Refunding Debt Service Fund	682,237	1,048,374	(366,137)
USB Series 2014 Refunding Debt Service Reserve Fund	7,735,183	7,735,395	(212)
USB Series 2016 Debt Service Fund	2,911,861	2,815,863	95,998
USB Series 2016 Debt Service Reserve Fund	7,591,999	7,591,999	-
USB Series 2010 Debt Service Fund	31,557	31,556	-
USB Series 2017 Refunding Debt Service Reserve Fund	7,566,460	7,566,460	-
USB Series 2017 Debt Service Fund	1,687,552	1,902,205	(214,653)
USB Series 2020A Debt Service Reserve Fund	6,659,700	6,659,700	-
USB Series 2020B Debt Service Reserve Fund	490,921	-	490,921
Total Investments	66,920,975	66,616,997	303,978
Total Restricted and Unrestricted Cash	343,698,854	358,371,949	(14,673,096)

GWA Work Session - February 16, 2021 - DIVISION REPORTS

Guam Waterworks Authority
Accounts Receivable - Government (Active)
January 31, 2021

SCHEDULE H

A G I N G									
Customer Name	No. of Accounts	Current	31 - 60 days	61 - 90 days	91 - 120 days	Over 120 days	Total		
Autonomous Agencies (Active)									
Guam Int'l Airport Authority	7	\$ 17,365	\$ 13,214	\$ 24,747	\$ 6,451	\$ 236,826	\$		298,603
Guam Power Authority	25	207,778	-	-	-	-			207,778
Guam Memorial Hospital Authority	3	39,337	2,610	2,741	2,681	5,823			53,193
Guam Housing & Urban Renewal Authority	9	8,266	724	227	-	-			9,216
Guam Visitors Bureau	1	3,477	-	-	-	-			3,477
Port Authority of Guam	5	2,186	-	-	-	-			2,186
Guam Housing Corporation	1	52	-	-	-	-			52
Total Autonomous Agencies	51	\$ 278,461	\$ 16,548	\$ 27,715	\$ 9,133	\$ 242,649	\$	574,506	
		48.47%	2.88%	4.82%	1.59%	42.24%		100.00%	
Line Agencies									
Department of Education	52	\$ 289,409	\$ 196,390	\$ 201,201	\$ 19,047	\$ 14,589	\$	720,637	
Mayors Council of Guam	60	26,734	23,421	28,087	22,755	75,343		176,341	
Department of Corrections	8	79,799	22,049	-	-	-		101,848	
Department of Parks & Recreation	12	47,839	6,381	35,225	2,573	3,046		95,064	
Department of Public Works	12	42,386	1,769	23,786	75	7,101		75,117	
Department of Chamorro Affairs	7	10,499	9,265	7,346	-	-		27,110	
Guam Fire Department	11	9,039	7,136	5,815	137	-		22,127	
Department of Agriculture	6	6,470	7,655	6,030	869	-		21,024	
Guam Police Department	8	8,128	4,884	3,714	1,515	1,346		19,587	
Department of Public Health & Social Services	8	2,481	1,888	2,006	1,472	2,354		10,202	
University of Guam	46	5,010	-	-	-	-		5,010	
Department of Military Affairs/GUARNG	1	3,966	-	-	-	-		3,966	
Guam Veterans Affairs Office	2	887	1,374	1,002	496	-		3,758	
Sanctuary Inc.	1	1,011	2,401	-	-	-		3,411	
Office of The Governor of Guam	2	1,977	-	-	-	-		1,977	
Division of Senior Citizens, Dph&Ss	2	378	274	369	323	520		1,864	
Department of Customs & Quarantine	1	428	428	428	389	-		1,673	
Guam Solid Waste Authority	2	1,656	-	-	-	-		1,656	
Office of Technology	1	667	183	-	-	-		850	
Merizo Mayor	1	75	58	218	69	153		573	
Guam Public Library	6	491	-	-	-	-		491	
Guam Police Department	1	227	220	37	-	-		484	
Department of Mental Health	2	423	-	-	-	-		423	
Department of Administration	3	358	-	-	-	-		358	
Department of Mental Health And Substance	1	353	-	-	-	-		353	
The Office of The Dededo Mayor	1	93	89	96	-	-		277	
Department of Agriculture-Fisheries	1	95	59	87	-	-		241	
Guam Energy Office	1	240	-	-	-	-		240	
Agat Mayor's Office	1	26	26	26	26	-		103	
Department of Youth Affairs	3	29	-	-	-	-			
Total Line Agencies	260	\$ 541,145	\$ 285,951	\$ 315,475	\$ 49,745	\$ 104,452	\$	1,296,767	
		41.73%	22.05%	24.33%	3.84%	8.05%		100.00%	
Total as of January 31, 2021 (Active)	311	\$ 819,606	\$ 302,499	\$ 343,190	\$ 58,878	\$ 347,101	\$	1,871,273	
		43.80%	16.17%	18.34%	3.15%	18.55%		100.00%	

GWA Work Session - February 16, 2021 - DIVISION REPORTS

GUAM WATERWORKS AUTHORITY
Accounts Receivable Aging Summary by Rate Class
As of January 31, 2021

SCHEDULE I

ACTIVE AND INACTIVE

Rate Class	A G I N G							
	No. of Accounts	Current	31 - 60 days	61 - 90 days	91 - 120 days	Over 120 days	Total	
Government	440	\$ 2,414,717	\$ 375,323	\$ 282,037	\$ 58,904	\$ 450,567	\$ 3,581,547	16%
Agriculture	398	38,400	7,865	3,467	2,532	55,643	107,905	0%
Commercial I	2,647	1,253,778	160,632	90,527	35,950	401,126	1,942,013	9%
Commercial II	29	146,400	53	65	62	206,582	353,161	2%
Commercial III	296	415,594	28,427	27,073	17,177	354,782	843,053	4%
Golf Course	16	2,608	155	155	-	-	2,918	0%
Hotel	59	1,263,231	137,570	123,666	154,042	694,458	2,372,966	11%
Irrigation	33	3,908	330	164	167	1,870	6,439	0%
Residential	49,942	4,799,922	958,326	682,185	560,473	6,015,550	13,016,453	59%
	53,860	10,338,556	1,668,680	1,209,338	829,306	8,180,577	22,226,455	100%
		47%	8%	5%	4%	37%		

Less Allowance for Doubtful Accounts: (8,671,542)
Net Accounts Receivable: 13,554,912

Days Receivables Outstanding 50

As of December 31, 2020

Rate Class	No. of Accounts	Current	31 - 60 days	61 - 90 days	91 - 120 days	Over 120 days	Total	
Government	443	\$ 2,450,376	\$ 399,766	\$ 213,132	\$ 35,710	\$ 472,422	\$ 3,571,406	16%
Agriculture	395	31,088	9,336	3,364	3,791	53,695	101,274	0%
Commercial I	2,636	1,179,806	177,073	57,511	32,049	398,340	1,844,780	8%
Commercial II	29	121,788	4,766	62	-	206,582	333,198	2%
Commercial III	297	713,664	118,881	21,274	15,517	354,296	1,223,631	6%
Golf Course	16	2,007	576	-	-	-	2,584	0%
Hotel	59	1,200,338	127,227	161,266	111,164	659,261	2,259,257	10%
Irrigation	33	3,110	303	234	171	1,899	5,717	0%
Residential	49,763	4,474,661	965,465	706,597	528,078	5,769,921	12,444,719	57%
	53,671	10,176,838	1,803,394	1,163,441	726,480	7,916,415	21,786,566	100%
		47%	8%	5%	3%	36%		

Less Allowance for Doubtful Accounts: (8,503,526)
Net Accounts Receivable: 13,283,040

Days Receivables Outstanding 50

ACTIVE ONLY

Rate Class	No. of Accounts	Current	31 - 60 days	61 - 90 days	91 - 120 days	Over 120 days	Total	
Government	434	\$ 2,531,111	\$ 375,268	\$ 282,025	\$ 58,904	\$ 443,461	\$ 3,690,768	21%
Agriculture	378	38,400	7,865	3,252	2,532	14,171	66,220	0%
Commercial I	2,431	1,251,246	160,130	87,503	32,403	217,828	1,749,109	10%
Commercial II	28	146,400	53	65	62	-	146,579	1%
Commercial III	281	414,162	28,291	26,764	17,177	280,387	766,781	4%
Golf Course	16	2,608	155	155	-	-	2,918	0%
Hotel	56	1,263,231	137,570	123,666	154,042	570,038	2,248,546	13%
Irrigation	32	3,908	330	164	167	575	5,144	0%
Residential	39,928	4,766,271	925,488	645,601	513,417	2,399,685	9,250,461	52%
	43,584	10,417,335	1,635,149	1,169,193	778,703	3,926,144	17,926,525	100%
		58%	9%	7%	4%	22%		

Less Allowance for Doubtful Accounts: (8,671,542)
Net Accounts Receivable: 9,254,982

As of December 31, 2020

Rate Class	No. of Accounts	Current	31 - 60 days	61 - 90 days	91 - 120 days	Over 120 days	Total	
Government	434	\$ 2,450,321	\$ 388,927	\$ 204,886	\$ 31,936	\$ 465,317	\$ 3,541,386	20%
Agriculture	374	31,088	9,084	3,311	2,315	13,098	58,896	0%
Commercial I	2,423	1,175,140	173,985	53,854	28,094	214,626	1,645,699	9%
Commercial II	28	121,788	4,766	62	-	-	126,616	1%
Commercial III	281	713,424	117,616	20,587	15,463	279,867	1,146,956	7%
Golf Course	16	2,007	576	-	-	-	2,584	0%
Hotel	56	1,200,338	127,227	161,266	111,164	534,841	2,134,837	12%
Irrigation	32	3,110	303	234	171	604	4,422	0%
Residential	39,846	4,447,591	931,630	665,131	485,581	2,188,565	8,718,497	50%
	43,490	10,144,807	1,754,114	1,109,331	674,724	3,696,917	17,379,893	100%
		58%	10%	6%	4%	21%		

Less Allowance for Doubtful Accounts: (8,503,526)
Net Accounts Receivable: 8,876,367

GUAM WATERWORKS AUTHORITY
Accounts Payable Aging

SCHEDULE J

As of	AGING						Total	Days Payable Outstanding
	Current	31 - 60 Days	61 - 90 Days	91 - 120 Days	> 120 Days			
January 31, 2021	\$ 1,631,565 63%	\$ 428,618 17%	\$ 53,700 2%	\$ 60,259 2%	\$ 404,065 16%	\$	2,578,207 100%	32
December 31, 2020	\$ 1,750,883 65%	\$ 428,618 16%	\$ 53,700 2%	\$ 45,426 2%	\$ 402,608 15%	\$	2,681,235 100%	33
November 30, 2020	\$ 1,840,702 68%	\$ 58,635 2%	\$ 294,325 11%	\$ 23,281 1%	\$ 493,971 18%	\$	2,710,914 100%	31

GUAM WATERWORKS AUTHORITY
WATER DEMAND BY RATE CLASS
FY2015 - FY2021

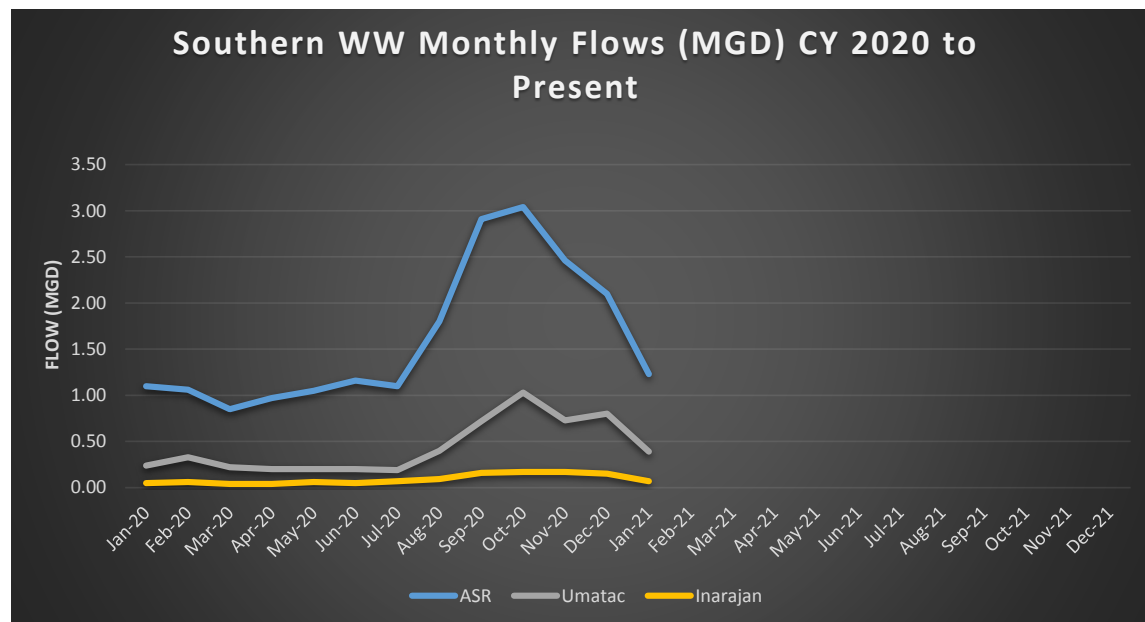
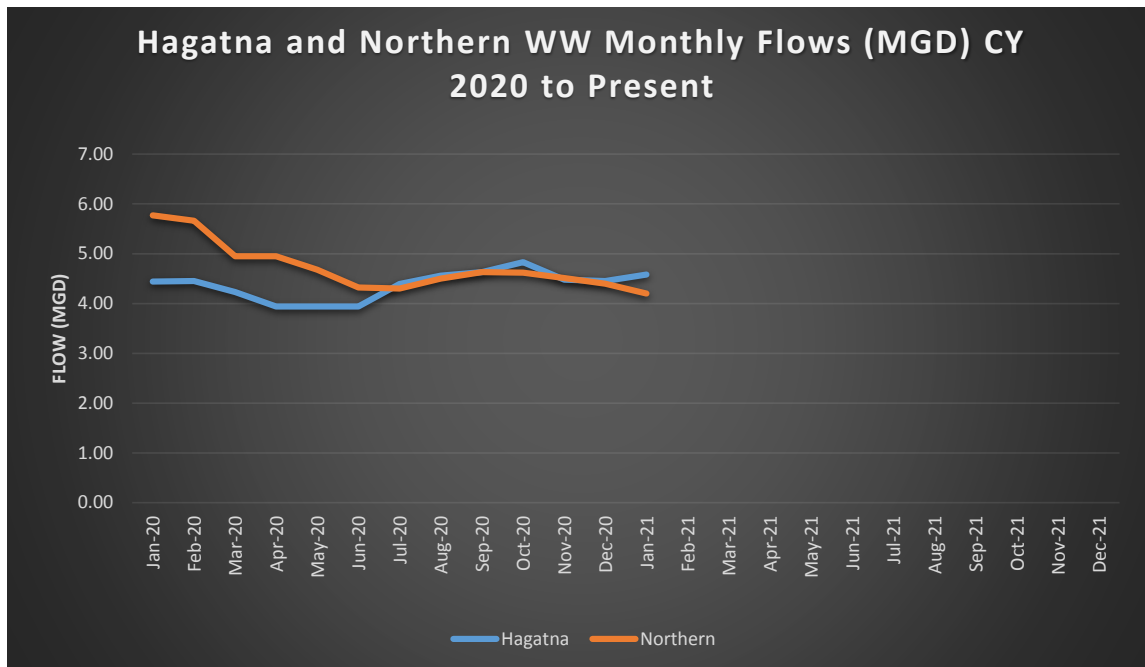
SCHEDULE K

CLASS	AUDITED						UNAUDITED			
	FY2015 TOTAL CONSUMPTION (kGal)	FY2016 TOTAL CONSUMPTION (kGal)	FY2017 TOTAL CONSUMPTION (kGal)	FY2018 TOTAL CONSUMPTION (kGal)	FY2019 TOTAL CONSUMPTION (kGal)	% Inc / (Dec.)	FY2020 TOTAL CONSUMPTION (kGal)	% Inc / (Dec.)	FY2021 TOTAL CONSUMPTION (kGal)	% Inc / (Dec.)
R Residential	3,415,662	3,429,689	3,206,811	3,313,613	3,359,905	1%	3,712,723	11%	3,690,290	-1%
C Commercial	1,020,089	1,022,890	964,639	910,905	906,192	-1%	822,029	-9%	719,223	-13%
F Federal	1,168	1,180	2,508	1,813	1,602	-12%	1,338	-16%	2,259	69%
G Government	515,974	475,366	448,430	450,165	405,980	-10%	408,502	1%	387,791	-5%
H Hotel	999,116	1,008,087	1,004,525	989,723	1,079,919	9%	714,161	-34%	418,007	-41%
G Golf	6,850	6,770	5,252	2,741	2,793	2%	5,835	109%	2,192	-62%
A Agriculture	67,376	78,628	69,482	81,127	90,803	12%	84,492	-7%	57,367	-32%
I Irrigation	<u>10,385</u>	<u>11,351</u>	<u>10,143</u>	<u>8,504</u>	<u>7,896</u>	-7%	<u>8,654</u>	10%	<u>5,797</u>	-33%
GRAND TOTAL	<u>6,036,620</u>	<u>6,033,960</u>	<u>5,711,790</u>	<u>5,758,590</u>	<u>5,855,091</u>	2%	<u>5,757,733</u>	-2%	<u>5,282,927</u>	-8%

Wastewater Treatment Plant Average Monthly Flows Million Gallons Per Day

2020	Hagatna	Northern	ASR	Umatac	Inarajan
Jan-20	4.44	5.77	1.10	0.24	0.05
Feb-20	4.45	5.66	1.06	0.33	0.06
Mar-20	4.23	4.95	0.85	0.22	0.04
Apr-20	3.94	4.95	0.97	0.20	0.04
May-20	3.94	4.68	1.05	0.20	0.06
Jun-20	3.94	4.32	1.16	0.20	0.05
Jul-20	4.39	4.30	1.10	0.19	0.07
Aug-20	4.56	4.50	1.80	0.40	0.09
Sep-20	4.63	4.63	2.91	0.72	0.16
Oct-20	4.83	4.62	3.04	1.03	0.17
Nov-20	4.48	4.51	2.46	0.73	0.17
Dec-20	4.45	4.40	2.10	0.80	0.15
2020 Average MGD	4.36	4.77	1.63	0.44	0.09
2020 Total MGY	1,590	1,743	596	160	34

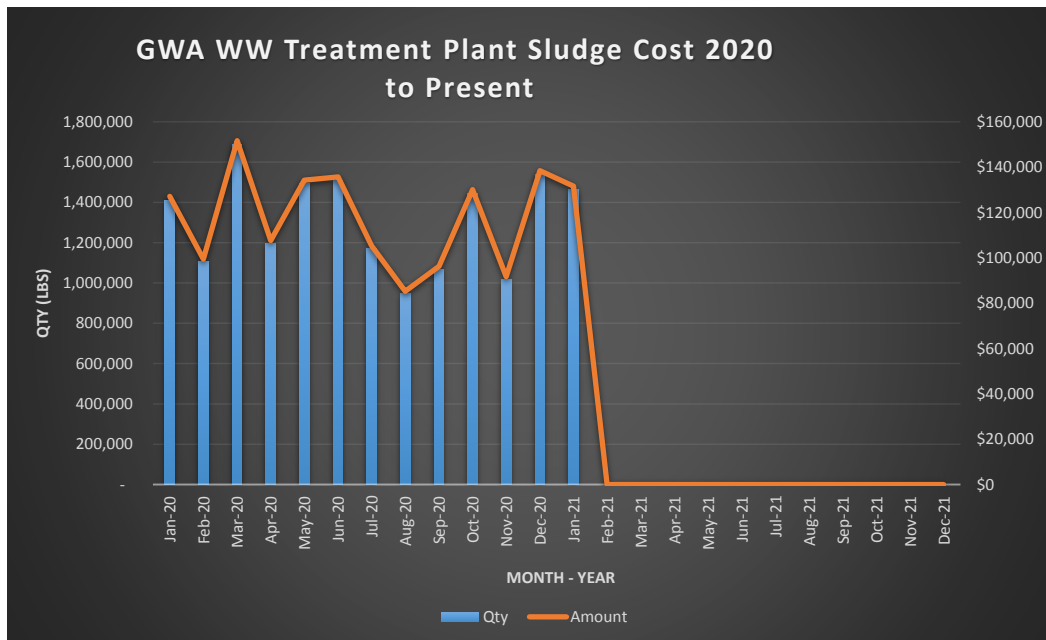
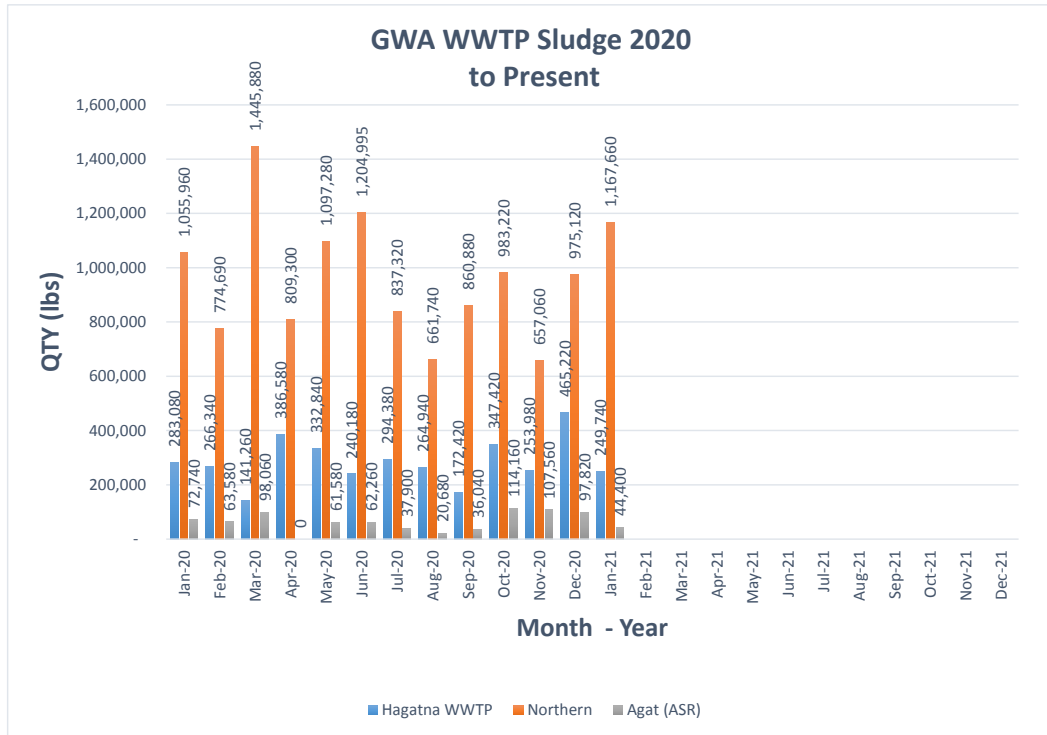
2021	Hagatna	Northern	ASR	Umatac	Inarajan
Jan-21	4.58	4.20	1.23	0.39	0.07
Feb-21					
Mar-21					
Apr-21					
May-21					
Jun-21					
Jul-21					
Aug-21					
Sep-21					
Oct-21					
Nov-21					
Dec-21					
2021 Average MGD	4.58	4.20	1.23	0.39	0.07
2021 Total MGY	1,672	1,533	449	142	26



GWA Work Session - February 16, 2021 - DIVISION REPORTS

	Hagatna WWTP		Northern		Agat (ASR)		Hagatna + Northern + Agat	
2020	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount
Month- Yr	lbs	\$	lbs	\$	lbs	\$	lbs	\$
Jan-20	283,080	\$25,477	1,055,960	\$95,036	72,740	\$6,547	1,411,780	\$127,060
Feb-20	266,340	\$23,971	774,690	\$69,722	63,580	\$5,722	1,104,610	\$99,415
Mar-20	141,260	\$12,713	1,445,880	\$130,129	98,060	\$8,825	1,685,200	\$151,668
Apr-20	386,580	\$34,792	809,300	\$72,837	0	\$0	1,195,880	\$107,629
May-20	332,840	\$29,956	1,097,280	\$98,755	61,580	\$5,542	1,491,700	\$134,253
Jun-20	240,180	\$21,616	1,204,995	\$108,450	62,260	\$5,603	1,507,435	\$135,669
Jul-20	294,380	\$26,494	837,320	\$75,359	37,900	\$3,411	1,169,600	\$105,264
Aug-20	264,940	\$23,845	661,740	\$59,557	20,680	\$1,861	947,360	\$85,262
Sep-20	172,420	\$15,518	860,880	\$77,479	36,040	\$3,244	1,069,340	\$96,241
Oct-20	347,420	\$31,268	983,220	\$88,490	114,160	\$10,274	1,444,800	\$130,032
Nov-20	253,980	\$22,858	657,060	\$59,135	107,560	\$9,680	1,018,600	\$91,674
Dec-20	465,220	\$41,870	975,120	\$87,761	97,820	\$8,804	1,538,160	\$138,434
Grand Total	3,448,640	\$310,378	11,363,445	\$1,022,710	772,380	\$69,514	15,584,465	\$1,402,602

	Hagatna WWTP		Northern		Agat (ASR)		Hagatna + Northern + Agat	
2021	Qty	Amount	Qty	Amount	Qty	Amount	Qty	Amount
Month- Yr	lbs	\$	lbs	\$	lbs	\$	lbs	\$
Jan-21	249,740	\$22,477	1,167,660	\$105,089	44,400	\$3,996	1,461,800	\$131,562
Feb-21		\$0		\$0		\$0	-	\$0
Mar-21		\$0		\$0		\$0	-	\$0
Apr-21		\$0		\$0		\$0	-	\$0
May-21		\$0		\$0		\$0	-	\$0
Jun-21		\$0		\$0		\$0	-	\$0
Jul-21		\$0		\$0		\$0	-	\$0
Aug-21		\$0		\$0		\$0	-	\$0
Sep-21		\$0		\$0		\$0	-	\$0
Oct-21		\$0		\$0		\$0	-	\$0
Nov-21		\$0		\$0		\$0	-	\$0
Dec-21		\$0		\$0		\$0	-	\$0
Grand Total	249,740	\$22,477	1,167,660	\$105,089	44,400	\$3,996	1,461,800	\$131,562



GWA Work Session - February 16, 2021 - DIVISION REPORTS

Guam Waterworks Authority		Date: 2/8/2021		<div><p>GUAM WATERWORKS AUTHORITY</p><p>WASTEWATER FACILITIES REPORT</p></div>
REVIEWS				
TOTAL PUMPS INSTALLED	171	OVERALL AVERAGE	90%	
TOTAL PUMPS OPERATIONAL	154	% OF OPERATING PUMPS	90%	
TOTAL PUMP STATIONS	77			

Northern District													
NO:	FACILITY	PRIORITY LISTED	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	SOUTHERN LINK	1	4	3	75%	GPA	A	P#4: Needs Sensor @ Guam Motor		VFD#4: Awaiting Repairs		Pending new pumps which are part of the Northern Treatment	
2	FLUJITA	1	4	3	75%	GPA	A	P#2 was removed 10-29-20 due to bearings issues. Pump at vendor pending repairs.					
3	YPAO	1	2	2	100%	GPA	A	P#2 In for repairs @ JMI; utilizing Machanao pump and volute on line 2.					
4	PASEO DE ORO	1	2	2	100%	GPA	A						
5	HARMON	2	2	2	100%	GPA	A						
6	ROUTE 16	1	4	2	50%	GPA	M	P#4 secured, P#3 secured due to flapper in check valve loose.				(OR 36249) - Check Valves (OR 36239) - Plug Valves	
7	LATTE DOUBLE TROUBLE	1	2	2	100%	GPA	A	P#2 Awaiting Repairs @ Shop, P#2 installed 04-22-2020 pump came from station 11					
8	LATTE SUN RISE	2	2	2	100%	GPA	A						
9	LATTE SUBMARINE	2	2	2	100%	GPA	A						
10	LATTE PLANTATION	2	2	2	100%	GPA	A						
11	PGD	2	2	2	100%	GPA	A						
12	MACHECHE	2	2	2	100%	GPA	A						
13	HAFA ADAI	2	2	2	100%	GPA	A						
14	YPAOPAO	1	3	3	100%	GPA	N/A						
15	PACIFIC LATTE	2	2	2	100%	GPA	A						
16	YIGO	1	3	3	100%	GPA	A	Pump #3 on standby. No data plate to confirm FLA.					
17	ZERO DOWN	2	2	2	100%	GPA	A						
18	SANTA ANA	2	2	1	50%	GPA	A	P#2 burnt, in for rewinding	20-07-2324			Pending PO (OR37017)	
19	MACHANAONAO	1	2	2	100%	GPA	N/A	P#1 and volute being utilized at Ypao pump station, new pump installed					
20	FEMA 96	2	2	2	100%	GPA	A	Pumps 1&2 removed awaiting rewinding. Utilizing pumps from Hafa Adai and Old Station 13 pump (BIG BLUE)					
21	ASTUMBO 1	2	2	2	100%	GPA	A						
22	ASTUMBO 2	2	2	2	100%	GPA	A						
Total	22		52	47	90%								

GWA Work Session - February 16, 2021 - DIVISION REPORTS

Central District													
NO:	FACILITY	PRIORITY LISTED	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/ AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	CABRAS ISLAND	1	2	2	100%	Portable	M						
2	COMMERCIAL PORT	1	3	3	100%	OP	A	P# 3 pump works, Standby					
3	PITI	1	2	2	100%	GPA	A						
4	ASAN	1	2	2	100%	GPA	A						
5	SINAJANA	2	2	2	100%	GPA	A						
6	NEW CHAOT	1	3	3	100%	OP	A						
7	ORDOT	2	2	2	100%	OP	A						
8	DERO	1	2	2	100%	OP	A						
9	CHALAN PAGO #5	2	2	2	100%	OP	A						
10	CHALAN PAGO #3	2	2	2	100%	OP	A						
11	FLORA GARDENS	2	2	2	100%	INOP	A						
12	DOUBLE SHAFT	1	3	2	67%	OP	A	Pump 2 removed due to impeller broke/Shaft worn				CIP write up for new pump/motor completed. At procurement pending review	
13	NAMU	2	1	1	100%	OP	A						
14	TAI MANGILAO	1	3	2	67%	GPA	A	Pump #3 at vendor for repairs.	20-03-0868			22-Feb-21	
15	MANGILAO	1	2	2	100%	GPA	A			Sump pump burnt and the breaker is damaged			
16	FIDIAN	2	2	2	100%	GPA	A						
17	LEYANG	2	2	2	100%	OP	A						
18	SAGAN BONITA 1	2	2	2	100%	OP	A						
19	SAGAN BONITA 2	2	2	2	100%	OP	A						
20	DAIRY	1	2	2	100%	INOP	A						
21	BARRIGADA	1	2	2	100%	GPA	A						
22	TOTO GARDENS	2	2	1	50%	INOP	A	Both pumps were replaced by contractor as per station upgrades. Pump #1 was removed due to over temp sensor was activated. Pending repairs from contractor.					
23	MONGMONG	2	2	2	100%	OP	A						
24	CASIMERU	2	2	2	100%	Portable	A			GPA RELOCATED GENERATOR			
25	MAITE	2	2	2	100%	GPA	A						
26	BAYSIDE	2	1	1	100%	INOP	A						
27	ALUPANG	1	2	2	100%	OP	A						
28	MAMAJANAO	1	3	3	100%	OP	A						
29	Agana Main	1	4	3	75%	OP	A	P4 is on Line # 2 /awaiting line 4 riser to be cleaned					
Total	29		63	59	94%								

GWA Work Session - February 16, 2021 - DIVISION REPORTS

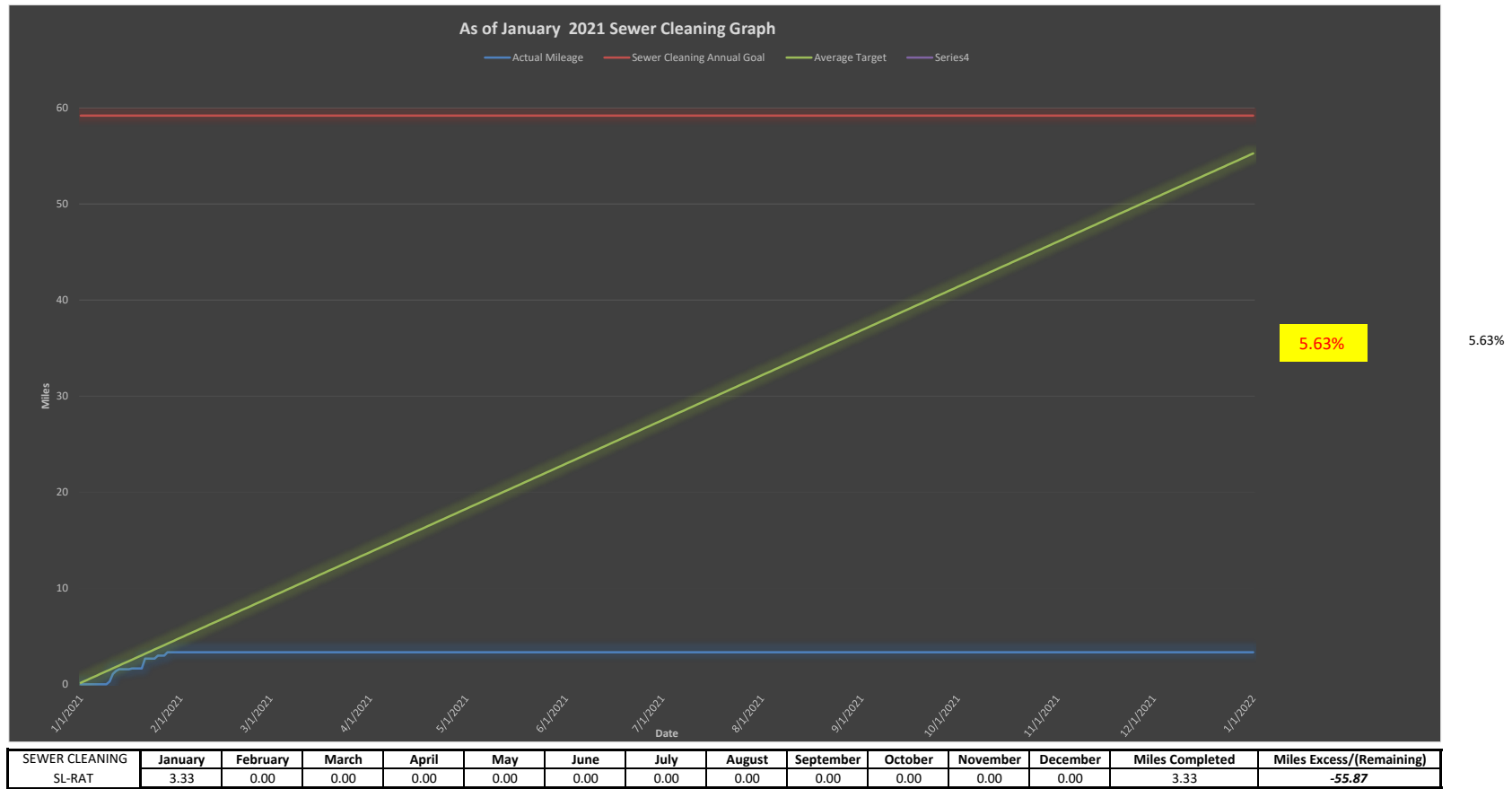
Southern District													
NO:	FACILITY	PRIORITY LISTED	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	GAAN #1	1	4	3	75%	OP	MAN	10-30-20 P#2 was removed and delivered to Guam Motor Rewind for repairs. Pump repair completed, pending impeller OR 8/7/29. 10-10-20 Requested LT to make assessments to LCP panel not in operation. Pending approval of price quotation for reprogramming system.	(P-2 20-09-2380) (LCP - 20-10-0696)				
2	PUMP STATION #11	2	2	2	100%	INOP	AUTO						
3	PUMP STATION #12	1	2	2	100%	OP	AUTO						
4	PUMP STATION #14	2	2	2	100%	OP	AUTO			Pumps are alternated weekly			
5	PUMP STATION #15	1	2	1	50%	INOP	AUTO	9-24-20 Maintenance team replaced original pump 1(25hp) with new Sulzer pump (34hp) due to the previous pump was not depleting wet well level. 9-28-20, Pump was later removed again due to pump DI sensor had activated. Pump is awaiting DI cable replacement and rebaking due to pump had a low megger reading.	20-09-1796	Pump #1 defective hourly meter.	20-05-1208		Generator Secured By GPA 4/18/20 due to Oil Leak.
6	PUMP STATION #16	2	2	2	100%	OP	AUTO						
7	PUMP STATION #17	2	2	2	100%	OP	AUTO						
8	PUMP STATION #18	2	2	2	100%	OP	AUTO						
9	INARAJAN MAIN	1	2	2	100%	OP	AUTO						
10	INARAJAN LIFT	1	2	1	50%	OP	AUTO	12/8/20 Pump#1 Leakage sensor indicated, electrician needs to do an assessment. 1-21-21 Electricians made an assessment and determined that the thermol sensor is defective. Electricians are working on purchasing a new sensor for replacement. As per Fred Dela Cruz.					
11	TALAFOFO	1	2	2	100%	OP	AUTO	1-17-20 Electricians determined that the sump pump is grounded and was recommended to be replaced. Entered work order into Lucy requesting maintenance to replace.	SUMP PUMP 20-01-0733	6-6-19 Exhaust blower for wet well is defective and needs replacement. Requested for electricians to relocate the existing blower unit at the old Agat treatment plant wet well and install it at Talofofo.		11-5-19 \$10,140.00 New M.W. ventilation repair quotation was sent to Mary. All ventilation ducts needs to be fabricated and installed. Sump Pump OQ 37573 (Pending OR & PO)	Need a new quote for OQ for new fiscal year. Will include replacement of blower due to blower from old Agat TP is not the same size.
12	PAGACHAO	2	2	2	100%	NONE	NA						
13	CHALIGAN	2	2	2	100%	OP	MAN			Requesting for electricians to make assessments to ventilation system to make it operational.	(Vent- 19-12-0390)	12-23-19 Fred is working on getting a lift to be able to go to the roof top to make assessments on the motor.	Pending PO for lift for electricians to access roof top to inspect blower.
14	EJECTOR #2	2	2	1	50%	PORTABLE /INOP	NA	10-21-20 Comp#1 motor tripping. Motor was removed by maintenance crew due to unit was determiend burnt by electricians.	20-10-1436			OQ 37385 (Pending OR and PO)	
15	EJECTOR #3	2	2	2	100%	PORTABLE /INOP	NA						
16	EJECTOR #4	2	2	2	100%	PORTABLE /INOP	NA						
17	EJECTOR #5	2	2	1	50%	PORTABLE/INOP	NA	11-13-20 Compressor #1 was removed and to be used at Ejector 7 for compressor #1.					
18	EJECTOR #6	2	2	1	50%	PORTABLE/INOP	NA	1-5-21 Compressor motor#1 2hp making loud noise. Motor cannot spin with connected load,possible bearing issue. Motor was disconnected by electricians. Pending pull-out by maintenance crew.					
19	EJECTOR #7	2	2	2	100%	PORTABLE/INOP	NA						
20	NORTH REYES	2	2	2	100%	PORTABLE/INOP	NA						
21	LEYON #3 (DanDan)	2	2	2	100%	OP	MAN						
22	LEYON #4	2	2	2	100%	OP	AUTO						
23	MTL PUMP STATION	2	1	1	100%	PORTABLE/INOP	NA						
24	Baza P/S	1	3	1	33%	OP	AUTO	12-9-20, Pump #1 was removed due to cooling jacket was leaking. 12-10-20, Pump #2 was removed due to impeller bolt snapped and mechanical seal was damaged.	20-12-0856, 20-12-0263			Pump #1 OR 37150 Pump #2 OR 37030 pending PO	
25	Windward Hills	1	3	3	100%	OP	AUTO						
26	Aplacho	1	3	3	100%	OP	AUTO						
	26		56	48	86%								
pump availability =no of operational pumps/no of pumps*100%													



Guam Waterworks Authority
VEHICLE FLEET STATUS
2/5/2021

EQUIPMENT STATUS				
Description	Number of Equipment	Number of Equipment Available	Number of Equipment Not Available	Percentage
Backhoe (Leased)	3	3	0	100%
Dump Truck (Leased)	3	3	0	100%
Trailer (Leased)	3	3	0	100%
Backhoe	3	2	1	67%
Boom Truck	2	0	2	0%
Crane	1	1	0	100%
Dump Truck	1	1	0	100%
Forklift	6	5	1	83%
Fuel Tanker	1	1	0	100%
Heavy Duty	11	10	1	91%
Hoist Rig	1	1	0	100%
Jetter	1	1	0	100%
Light	156	119	37	76%
Mini Backhoe	2	1	1	50%
Pumper Truck	1	0	1	0%
Skidster	1	0	1	0%
Sludge Truck	5	3	2	60%
Tractor	2	2	0	100%
Tractor Mower	1	0	1	0%
Trailer	15	12	3	80%
Trencher	1	0	1	0%
Vacuum Truck	5	2	3	40%
Water Buffalo	2	2	0	100%
Water Tanker	5	3	2	60%
Compressor	1	1	0	100%
Total	252	176	57	

SUMMARY						
Operational	Operational w/Rprs Pending	Not in Operation-Accident (Docs Pending)	Not in Operation-Assessment Pending	Not in Operation-Repairs Pending	Not in Operation-Vendor Repairs	Recommend Survey
3	0	0	0	0	0	0
3	0	0	0	0	0	0
3	0	0	0	0	0	0
2	0	0	0	1	0	0
0	0	0	0	0	1	1
0	1	0	0	0	0	0
1	0	0	0	0	0	0
5	0	0	0	0	0	1
1	0	0	0	0	0	0
10	0	0	0	0	0	1
1	0	0	0	0	0	0
1	0	0	0	0	0	0
117	2	5	2	7	8	15
1	0	0	0	1	0	0
0	0	0	1	0	0	0
0	0	0	0	1	0	0
3	0	0	1	1	0	0
1	1	0	0	0	0	0
0	0	0	0	0	1	0
12	0	0	0	3	0	0
0	0	0	0	1	0	0
2	0	0	0	1	2	0
2	0	0	0	0	0	0
3	0	0	0	0	2	0
1	0	0	0	0	0	0
176	4	5	4	16	14	18



5 miles a month required, 59.2 miles a year to complete for 2020 (296 miles to complete in 5 years)

59.2 miles x 5 years = 296 miles

296 miles / 5yrs = 59.2 miles a year required to be completed

59.2 miles / 12 months = 4.93 miles a month required to be completed

4.92 miles x 5,280 = 25,977.6ft. / 4 weeks = 6,494.4ft. Per week required to be completed

6,494.4ft / 5 days = 1,298.8ft required to be completed daily

Guam Waterworks Authority		Date: 1/29/2021	 GUAM WATERWORKS AUTHORITY WATER DISTRIBUTION FACILITIES REPORT
		Time:	
REVIEWS			
TOTAL PUMPS INSTALLED	56	OVERAL AVERAGE	96%
TOTAL PUMPS OPERATIONAL	54	% OF OPERATING PUMPS	96%
TOTAL BOOSTER PUMP STATIONS	27		

Northern District													
NO:	FACILITY	PUMP HP	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	PUMP AND MOTOR INVENTORY
1	Yigo	30	3	3	100%	OP	A						
2	Gavnerio	20	2	2	100%	OP	A						
3	Mataquac	25	2	2	100%	OP	A						
4	Santa Rosa	15	2	2	100%	OP	A						
5	Hyundai	40	2	1	50%	OP	A	1-29-21 work still ongoing with upgrading control wires. One pump placed on standby.		Electrical wires being upgraded.			
6	Chln, Palauan	5	2	2	100%	N/A							
7	Access	60	2	2	100%	OP	A						
8	Agana Heights	30	3	3	100%		A						
9	Nimitz Hill	7.5	2	2	100%	N/A							
10	Adawaq	1.5	1	1	100%	N/A							
11	Pale Kiren	1	1	1	100%	N/A							
12	Uliga/Untalan	1	2	2	100%	OP	A						
13	Latte Heights	15	2	2	100%	OP	A						
TOTAL = 13			26	25	96%								
pump availability =no of operational pumps/no of pumps*100%													

Central District													
NO:	FACILITY	PUMP HP	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	Pago	150 / 100	3	3	100%	OP	A						
2	Brigade	60 / 20	3	3	100%	OP	A						
3	Windward Hills	200 / 75	3	2	67%	OP	A	Pump 2 pending mechanical seals and rebuild kit.					
4	Santa Rita Spring	40	2	2	100%	OP	A						
5	Santa Ana (Lower)	25	1	1	100%	N/A		1-29-21 Renovation of station started. One pump remains in service during this period.					
6	Camacho	1	1	1	100%	N/A							
7	Tenono	1.5	1	1	100%	N/A							
Total=7			14	13	93%								
pump availability =no of operational pumps/no of pumps*100%													

Southern District													
NO:	FACILITY	PUMP HP	NO OF INSTALLED PUMPS	NO OF OPERATIONAL PUMPS	PUMP AVAILABILITY %	GENERATOR OPERATIONAL FAULT	ATS MANUAL/AUTO	PUMP UNIT REMARKS	WORK ORDER NO:	VALVES, ELECTRICAL,STRUCTURAL REMARKS	WORK ORDER NO:	ESTIMATED REPAIR DATE	UPDATES
1	Maloloj Line	125 / 50	3	3	100%	OP	A						
2	Geus	25	2	2	100%	OP	A						
3	Pigua	7.5	2	2	100%	N/A							
4	Toquan	25	2	2	100%	OP	A						
5	WBP-2	25	2	2	100%	OP	A						
6	WBP-1	5	2	2	100%	OP	A						
7	Maloloj Elevated	15	3	3	100%	OP	A						
Total=7			16	16	100%								
pump availability =no of operational pumps/no of pumps*100%													